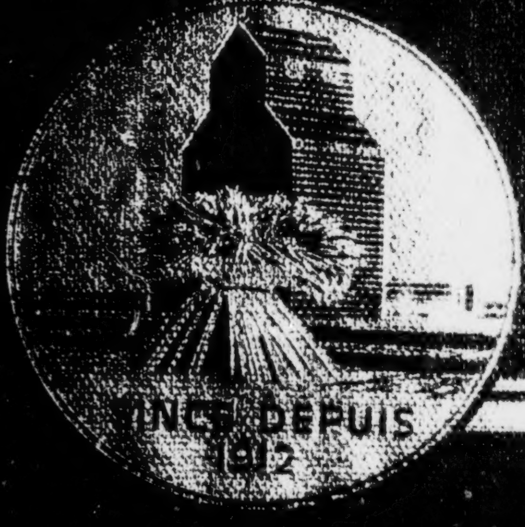
A HISTORY OF THE CANADIAN GRAIN COMMISSION

1912-1987

by

J. BLANCHARD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ERRATA SHEET: PHOTO PAGES

1. Following page 46

   - Second page bottom right - (Sampler) l. to r. P. Penfold, J. McConigal.

2. Following page 86

   - First page bottom picture - 2nd row should read W. Eva, J. Forsythe, unknown, Q. Moffat, W. Beck, B. Chivers, H. Johnson, G. Timbers, D. Ross. 3rd row, fourth from right A. Melrose.

   - Second page upper left - Front row, l. to r. C. Owen, H. Temple, G. Timbers, F. Varley, W. Beck, J. Forsythe. Back row, l. to r. T. Wren, D. Ross, Q. Moffat, F. Reader, S. Leask, C. Finnen, H. White, B. Forrester, B. Chivers, J. Byers, D. Miller.

   - Second page upper right - Front row, l. to r. A. Poole, J. McLaughlin, M. Lewis, W. Parkinson, G. McLeod. Back row, T. Bunn, B. Bedwell, G. Killeen, R. Berry, unknown, C. Lewis, C. Hammond.

   - Fifth page upper right - C. Finnen, P. Fraser, B. Prescott, A.F. Dollery, J. Conacher, C. Hammond, M. Ainslie, C. Owen.

   - Fifth page middle left - Front of table, l. to r. Mrs. R. Kilborn, A. Armstrong, B. Cumming, D. Cowherd.

   - Fifth page lower right - E. Mydlo, J.J. Green, G.N. Irvine, J. Channon.

   - Sixth page upper right - l. to r. A.W. Alcock, unknown, I. Levi, H. Rowland, W.O.S. Meredith, D. Kaufman, A.D. Robinson, W. Eva, J.A. Anderson, T.R. Aitken.

   - Facing page 87 - W. Copper should read W. Cooper; H. McEwean should read H. McEwen.

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1987

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PREFACE

The year 1987 marks the 75th anniversary of the Canada Grain Act and the formation of the Board of Grain Commissioners. The establishment of the Act and the Board was the response of the Government of Canada to demands by western producers for regulation of the grain gathering and transportation system.

Although a grading system had been in place for some years, and various pieces of legislation had been enacted to govern inspection of western grains, the 1912 Act brought these together and created what is now the Canadian Grain Commission. Then, as now, the Commission's purpose was to protect farmers' interests and, through the Canada Grain Act, to provide a legislative framework for a fast-growing grain industry.

Active lobbying by farmers had made the government well aware of the practices which needed remedy. It is fortunate that the drafters of the legislation also provided for the needs of the commercial sector of the industry. The result was a fair balance which recognized the rights of producers and merchandisers, and importantly, the need for a neutral agency for settlement of disputes between them.

This book is the story of the first 75 years of this government agency and its development side-by-side with the Canadian grain industry. Mr. Blanchard has detailed this growth and the interaction between producers, the gathering system and the Canadian Grain Commission. His carefully assembled material and clear writing style bring to light the important milestones in that period.

G. G. Leith
Chief Commissioner

INTRODUCTION

This history traces the evolution of an act of Parliament — the Canada Grain Act — and of the agency set up to administer that act. It is also, however, the story of the hundreds of people who have worked for the Commission — individuals like the fiercely independent Dr. Birchard; John Rayner, a man of great energy and good humor; Harold Rasmusson, the brilliant inventor of the 919 moisture meter about whom 'mad scientist' stories abound; and R.S. Allen, who began working for the Board as a clerk and finished his career 40 years later as Secretary to the Commission. It has been impossible to do justice to these and the many, many other people who have made the Commission work over the last 75 years. This history is, in a way, a monument to them and to their labor and dedication.

The grain trade has changed greatly since 1912 and terminology has changed with it. I have tried to use terms which were current in the period being discussed. For example, the weighover of today was, in the early years, called a weigh up and that is the term I have used in the earlier chapters.

I have not given footnotes except in the case of direct quotations. I have included all my sources in the bibliography, which is by no means an exhaustive bibliography of the period.

Many people have helped bring this project to completion. I would like to thank the Chief Commissioner, George Leith and Commissioners Groundwater and Klassen for their support. John O'Connor, Ray Kullman and Sue Bishop have also given much support and encouragement. Cheryl MacDonald, my colleague in the Library, has been very patient during my absences and has worked hard to keep the operation running smoothly. Special thanks are due to Janet Edwards who typed the manuscript and did the painstaking work of making the corrections.

Tom Askin, Reg Gosselin and George McLaughlin have been very generous with their time in answering my questions and giving advice. I interviewed many people including R.S. Allen, Earl Baxter, Frank Hamilton, C.L. Shuttleworth, Dr. J.A. Anderson, Dr. W.O.S. Meredith, H.D. Pound, Bill Morris and Vic Martens — they were all very cooperative and willing to spend time with me.

George Leith, John O'Connor and Earl Baxter all read the original manuscript and made many helpful corrections. Susan Steiger also spent many hours going over the text and suggested many useful changes, and Lynda Burch did the work required to get the book into publication. Dr. John Dempster devoted a good deal of time and effort to improving my account of the Laboratory. Lyle Dick of Historical Research at Parks Canada kindly read part of the manuscript and made a number of suggestions. All these people deserve thanks for their contributions to this project.

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ABOUT THE AUTHOR

Jim Blanchard was born in Brandon where he went to school and earned a B.A. at Brandon University. He received an M.A. in History from the University of Manitoba and an M.L.S. from the University of Western Ontario. He has worked as a Librarian in Saskatchewan and Winnipeg and is currently the librarian of the Canadian Grain Commission. He has published a number of articles on the history of libraries.

TO LAURIE

CHAPTER 1

BACKGROUND 1900-1912

The mood amongst the grain farmers of the west during 1897, 1898 and 1899 was one of outrage, indignation and frustration. There was no doubt in their minds that the CPR, the grain dealers and the milling companies were formed into a monopoly designed to cheat them. These quotations capture the mood quite well:

> The Tribune has reason to believe that a gigantic combination exists to defraud the farmers of Manitoba and the west in connection with the wheat crop. (Tribune Sept. 14/97 p. 2).
> From many different quarters there comes up an ominous growl this fall over the agitated question of elevator monopoly and combine of the grain companies. (Tribune Sept. 14/97 p. 5).

Words like monopoly and combination aroused strong passions in the 1890's, in the way that pollution does today. It was the era of the trust busters. Teddy Roosevelt was making his political reputation attacking the large business conglomerates in the U.S.. So-called yellow journalists and other leaders of the American progressive movement kept the issue uppermost in the public mind. The Octopus, the classic novel published by Frank Norris in 1901 specifically attacked the American grain trade. The large grain companies were likened to an octopus, squeezing the life out of honest farmers. In The Pit, published two years later, Norris was critical of the operations of the Chicago Commodity Exchange. These books were widely read and they are representative of the suspicions felt by many toward the grain trade.

In Canada, papers like the Winnipeg Tribune, owned in the late 1890's by R.L. Richardson a renegade Liberal M.P., focused on the farmer's grievances. Partly to embarrass his political foe, Clifford Sifton, and partly to force the government to take some meaningful action, Richardson led the charge, complaining about the "syndicate of syndicates" which was cheating the farmer on prices, grades and dockage.

There can be no doubt that there were abuses in western Canada — this was inevitable in a situation where the railroad and the grain trade held all the cards and the farmer held none. The result was a state of undeclared war between the two factions involved in the grain industry. As M.P. J.G. Rutherford said in 1899:

> Anyone who has had the opportunity to observe the condition under which the grain trade of the country is carried on, must be aware of the constant friction, the never ending irritation, which characterizes the transactions between the farmers and the grain dealers. (H. of C. Debates April 20, 1899 column 1906).

In this overheated atmosphere, in 1898, western farmers and the politicians who represented them, began to forge an act of Parliament that would regulate the totally unregulated grain trade and offer the farmer some measure of protection. Over the next 90 years the Manitoba Grain Act and its successor the Canada Grain Act would undergo numerous changes, reflecting the changes that were taking place in the Canadian grain industry. None of these revisions were made without considerable conflict and jockeying for position amongst the various stake holders in the industry.

The Manitoba Grain Act of 1900 and the Canada Grain Act of 1912 have an almost mythical significance in western Canada. Both acts have come to be called the Magna Carta of the western grain grower. It is interesting that, over the years, there has been a good deal of controversy amongst historians over this description of the acts. V.C. Fowke, the distinguished historian of government wheat policy, took the view that the various governments involved made concessions to farmers cynically, using Royal Commissions and the resultant changes to the acts as bribes designed to defuse agrarian protest. More recently historian D.J. Hall, in his article "The Manitoba Grain Act: An Agrarian Magna Carta", disagrees with Fowke. Hall's view is that the federal government, in its regulatory legislation, made significant concessions to western farmers. Hall writes that the first, 1900 version of the Act was not worthy of the status of Magna Carta in that it represented only the initial stage of the legislation and was far from acceptable to the western grain growers. It was only with the revisions of 1902, over which the newly organized Territorial Grain Growers had great influence, that the farmers were given the sort of regulation they had been demanding.

Another historian, Lyle Dick, adds to the debate by arguing that the Act was not a Magna Carta for all western farmers, but only for the more prosperous ones who lived near the railroad. It was only these large scale farmers who could take advantage of the car order provisions of the Act, because only they could produce and haul enough grain to load a whole boxcar.

Whatever opinion one may have of the government's motives, it cannot be denied that the organized farmers of western Canada were remarkably successful in their lobbying efforts when compared to their counterparts in other countries. Federal legislation in the U.S., for example, was not passed until 1917 and then in a form designed to satisfy the powerful grain trade lobby. It is true that state legislation, like the Warehouse Act of Minnesota, served as a model for the Canadian acts, but this was state legislation and therefore of limited benefit to farmers. Farther afield, in Argentina, grain producers had no opportunity at all to make themselves heard. The vast tenant farms were tied into a system controlled by the railroads and large grain companies — a system which worked only to their advantage. (Merchants of Grain pp. 38/39).

Let us look now at the series of events that led to the passage of the first Manitoba Grain Act in 1900. In 1898, as we have seen, the issue uppermost in everyone's mind was monopoly. The western papers were full of stories about a "syndicate of syndicates" in the grain trade which, it was alleged, was fixing prices and combining to deny competition amongst grain buyers at country points. The immediate cause of the outcry was the attempt by the C.P.R. in 1897 to encourage the construction of standard elevators along its lines. This was done by denying cars to any grain shippers, other than the owners of elevators.

Cars were thus not available to individual farmers who might want to ship grain themselves by loading a boxcar directly from their wagon, and to small grain dealers operating flat warehouses. The high cost of putting up a standard elevator made it impossible for small companies to consider them. The net effect of the policy, if it had been allowed to continue, would have been to concentrate more and more business in the hands of large enterprises — to encourage monopoly. There was already a tendency in that direction, as the Royal Commission of 1900 discovered. In that year it was found that 70% of the standard elevators in operation on the prairies were in the hands of 5 corporations.

When farmers brought their grain to the rail line, therefore, they were confronted with a situation in which they had very little choice. If they could not get boxcars, either because the railroad refused them or because there was a shortage, they were forced to sell their grain to the elevator operator at whatever price was offered. This price, called the street price, was based on the price the company expected to eventually receive once the grain was in store in the terminal at the head of the lakes, minus the cost of storing, handling and cleaning it, and minus a certain amount for profit. It was found in 1897, however, that prices varied greatly depending upon the amount of competition a buyer faced at a particular station. If there was no competition, the street price could be very low.

In the session of 1898, therefore, a private member's bill was put before the house by James Douglas, M.P. for Assiniboia. It was designed to regulate the transit of grain in western Canada. The bill required the railroad to supply cars to farmers and operators of flat warehouses. Douglas argued that:

> ...the result of that will not be, I apprehend, to destroy the elevator system, but the menace to the farmers will be removed.
> (House of Commons Debates March 17/1898 column 2066).

The grain trade did not agree and lobbied vigorously to have the bill dropped. They were successful and the bill was not passed into law that year, but it served as an important warning signal to the government of the unrest amongst western farmers. The following year the C.P.R. abandoned its policy of withholding service from flat warehouse owners and farmers, acknowledging that it contravened the Railroad Act.

Discontent continued to be widespread amongst western farmers, both over the monopoly issue and a range of more general complaints about the grain handling system. There was a growing feeling that the answer to these problems was government regulation of the industry. In 1899, a number of private member's bills were introduced, including one authored by James Douglas. Amongst other measures, Douglas wanted a Chief Inspector to be appointed for the Western Inspection District. Such an office was mentioned in the General Inspection Act, but no one had ever been appointed to the job. Douglas saw the role of such an officer as being that of a mediator:

> ...There is a general want of confidence between the grain dealers and the producers, and it is felt that if such an inspector were appointed, when difficulties would arise, he would be the one to whom the parties would refer their difficulties and have them adjusted and adjusted promptly. (H. of C. Debates April 20, 1899 column 1905).

This view of the Chief Inspector's duties was a departure from those assigned to him in the General Inspection Act, and a departure from any duties that had ever been assigned to a grain inspector in Canada. Up to this time inspectors had been charged with grain inspection and the only disputes the as Chief Inspector was expected to settle were those which arose between a grain inspector and the owner of the grain. Now he was to mediate between producers and the grain trade — an entirely new and not particularly agreeable duty.

This view of what inspectors should be doing surfaced in a schedule of regulations added to the General Inspection Act in the same year, 1899. Dr. Irvine quotes the clause in question in his book and points out its significance as the first real piece of grain related regulatory legislation in Canada. It is worth quoting again, since it found its way into successive acts in slightly altered form.

> Whenever there shall arise a difference of opinion between any farmer selling wheat and any wheat buyer as to the grading of such wheat, the farmer while taking the price offered for his wheat as of lower grade than that to which, in his opinion it belongs, may insist on a sample being selected and agreed on between buyer and seller, which sample shall be parcelled and sealed and sent to the Chief

> Inspector at Winnipeg, and the said Chief Inspector shall grade the said wheat without delay and make a return of his grading to both parties, and if the said Chief Inspector finds the said wheat to be of a higher grade than that on which the price had been already paid then the said buyer shall pay to the farmer... the difference...

Douglas' private member's bill called for similar measures. In 1899, the government, impressed by the extent of the unrest in western Canada and planning to call an election the following year, supported the bill. Minister of the Interior Clifford Sifton rose in the House to speak in favour of it and to describe the situation which gave rise to much of the unrest amongst producers. He said:

> ...from the time the farmer lets go his grain at the elevator, he has no further control over it, but the price which he is paid when he leaves his grain at the elevator door is regulated by what happens after he parts with it. (H. of C. debates, April 20/99 column 1915).

In an attempt to gain a measure of control over the situation, Sifton suggested that consideration of the farmers' grievances be taken up by a special parliamentary committee. This committee in turn suggested a Royal Commission, to study the problems and decide whether legislation was needed. The Commission was duly appointed in October, 1899 and issued its report the following March. The recommendations of this Commission provided the framework for the Manitoba Grain Act.

The Royal Commission of 1899, with first Judge Senkler, and after his sudden death, Judge Richards in the chair, included three Manitoba farmers — William Lothian, W.R. Sirett and Charles Castle. Sirett later went into provincial politics and Castle was to become the first and only Warehouse Commissioner under the Manitoba Grain Act. The secretary of the Commission was Charles Napier Bell, who was a well known and respected representative of the trade. He was for many years secretary of the Winnipeg Grain Exchange, and of a number of other organizations connected with the grain trade.

The Commissioners were instructed to inquire into the problems which Douglas had identified as making legislation necessary. These were in three principal areas.

> First, that a vendor of grain is at present subjected to an unfair and excessive dockage for his grain at the time of sale. Second, that doubts exist as to the fairness of the weights allowed or used by the owners of elevators. Third, that the owners of elevators enjoy a monopoly in the purchase of grain by refusing to permit of the erection of flat warehouses where standard elevators are situated, and are able to keep the price of grain below its true market value to their own benefit and the disadvantage of others who are specially interested in the grain trade, and of the public generally. p.1.

In its report, the Commission recommended legislation as a remedy to these problems:

> There being no rules laid down for the regulations of the grain trade other than those made by the railway companies and the elevator owners, we think it of great importance that laws should be enacted and that rules should be made under power given by such laws, which will properly regulate the trade. p. 12.

In the Commissioner's opinion, the monopoly issue was at the root of all the other problems. On page 11 they stated:

> We consider that the proper relief from the possibility of being compelled to sell under value and of being unduly docked for cleaning, is only to be had by giving the fullest obtainable freedom in the way of shipping and selling grain. It is only in such a way that the great agitation and bitterness of feeling which has arisen can be ended. So long as anyfarmer is hampered in, or hindered from himself shipping to terminal markets, he will be more or less at the mercy of elevator operators.

Freedom in shipping and selling was to be safeguarded by making it a farmer's right to load grain directly into boxcars and by protecting the flat warehouse owners from being put out of business by the railroad. Indeed, the Commission recommended, and the resulting act stated, that where a specific number of producers requested it, a flat warehouse or loading platform had to be erected at a station.

In their basic outline, the Commission's recommendations were based upon the 1885 Minnesota "Act to Regulate Warehouses, Inspection, Weighing and handling of grain". The Canadian trade was to be regulated through the mechanism of an operating license which would be renewed every year. Infractions of the Act could result in the loss of the license. The terminal warehouses would come under direct supervision of government weighmen who would monitor weights into and out of terminal storage. A system of warehouse receipts was provided for. These receipts would serve as proof of ownership of grain in storage and when the grain was shipped out, they would be cancelled.

Regulation of country elevators was not to be done by officials on the spot. Differences of opinion over grades or dockage were to be settled by sending a sample to the Chief Inspector, his decision to be final. In addition, the office of Warehouse Commissioner was established. This official was empowered to investigate all complaints made under oath and sent to him in writing, about unfair practices in country elevators. The Commissioner would have the power to investigate all records and to examine the scales, machinery and fixtures of the elevator. If satisfactory redress was not made, the Minister could initiate court proceedings.

The Royal Commission suggested dealing with dockage in two ways. First, a standardized sieve for use in country elevators would be described in the Act. Secondly, it was suggested that the Inspection Act be changed so the inspector could specify on his certificate the percentage of dirt to be removed in the terminal elevator to bring the grain up to the grade.

The recommendations were incorporated in the Manitoba Grain Act, passed in 1900. The basic framework of the Act was the same as that of the present Canada Grain Act. In order to operate, elevators and grain dealers were to obtain a license; in order to keep the license they would be required to abide by the provisions of the Act. The flow of grain through the terminal points to the export market was to be carefully monitored by inspectors and weighmen, to ensure that the quantity and quality of grain contracted would be delivered to the customer. Lastly, the Warehouse Commissioner, like his successors, the Board of Grain Commissioners and the Canadian Grain Commission, was to provide a source of redress for complaints and to mediate disputes.

The 1900 Act did not deal in detail with two important areas — grain inspection and grain transportation. Grain inspection, at this time, was covered in a separate Act, the General Inspection Act, which governed the inspection of staples like grain, fish, meat, hay and vegetables. We have already noted that by 1900, the grain inspection system as we know it today was in place in Western Canada. Grain transportation was an area of concern that was soon dealt with by amendments to the Manitoba Grain Act.

The specific transportation issue that most angered farmers was the distribution of boxcars in the country. The issue in the early years of the century was not whether the farmer had a right to a car — that was guaranteed in the Act and acknowledged by the railroad. The problem was, when would he get this car he was entitled to? The practice, it was felt, was often to first take care of the grain companies' requests before allocating cars to individual farmers. This could mean a long wait, especially in years like 1901 and 1902 when bumper crops put enormous pressures on the rail system. In the fall of 1901, fights actually broke out between rivals vying for boxcars.

The newly formed Territorial Grain Growers sent a resolution to Ottawa in 1902, asking that cars be apportioned "in the order they are applied for". This was incorporated into an amendment to the Act which became section 58. This section provided for a car order book in which requests for cars were recorded, in order of receipt. Cars were to be given out in the same order, as they became available.

The new clause was tested in the courts the same year. Two members of the Territorial Grain Growers executive — W.R. Motherwell and Peter Dayman, both of Sintaluta — made a complaint to the Warehouse Commissioner that the new section of the Manitoba Grain Act was not being complied with by the station agent at Sintaluta. A case was brought against the C.P.R. and the agent was found guilty of giving cars out of turn to elevator agents.

The Sintaluta case is important for a number of reasons. It was the first test of the new Act in the courts and the first practical test of the Warehouse Commissioner as a source of redress. It also resulted in a rewording of the section, to clarify the intent — something the railroad had hoped to achieve.

The events of 1902/03 also marked an important change in government policy. D.J. Hall, in his article on the Manitoba Grain Act, charts the gradual change in Clifford Sifton's thinking, from half hearted support in 1900 to close cooperation in 1902. Sifton had come to respect the growing influence of the Territorial Grain Growers in a way that he had never respected the previous farm organizations in the west. In a letter quoted by Hall, Sifton declared that the Grain Growers ought to receive "straightforward and emphatic support" from the Liberal party and that if their reasonable demands were acceded to, the more fantastic ones would be "lost sight of". (Hall, p. 117).

Speaking in the House at the time of the amendment to the Act, Sir Wilfred Laurier himself gave voice to the new attitude of the government:

> It is only for our friends from the North West to point out the remedy and the government will be only too glad to give them every assistance to make the act as effective as it can be made. (House of Commons, March 10, 1902, column 926).

Part of the reason for this new attitude was the quality of the leadership of the Grain Growers. Men like W.R. Motherwell, who would later be Minister of Agriculture in both Saskatchewan and Ottawa, lobbied effectively and expressed themselves well. The historian of the wheat pools, H.S. Patton, writing of their 1902 resolution on the car order book wrote:

> These resolutions, whose explicit, business like character contrasted significantly with the vague and spacious declarations of the old Patrons Lodges, were carried to Ottawa... The government was impressed, and the Grain Growers' resolutions were incorporated, in almost the very language of the petitioners, in the amendments to the Manitoba Grain Act. (Patton, p. 34-35).

Hall also points out that Sifton was motivated by the desire to win farm votes. Even with the passage of the Grain Act in 1900, the Liberals did not do well in the general election of that year. With the further concessions of 1902 they made significant gains at the polls.

Sifton was also no doubt aware that his larger policy of settling the west with homesteaders could never be accomplished if western Canada got the reputation of a place where the farmer's rights were not safeguarded.

Whatever the reasons, the policy of working in cooperation with the organized farmers of the west continued. It is especially evident in the many appointments made to the Board of Grain Commissioners and the Canadian Grain Commission of farm leaders who came to prominence working in the Grain Growers and Pool movements.

Two things occured in these years which indicated the growing importance of grain as a Canadian export commodity. In 1902 the Manitoba Grain Act was placed under the authority of the Minister of Trade and Commerce. It had been the responsibility of the Minister of Inland Revenue, who had, historically, looked after the inspection of staples. In 1904 the grain sections of the General Inspection Act were removed and placed in a distinct law — the Grain Inspection Act — which also became the responsibility of the Minister of Trade and Commerce.

As the first decade of the century progressed, the focus of discontent over the grain trade moved from the country elevator to the operations of the Winnipeg Grain Exchange and the terminal elevators at the head of the lakes. In 1906 a Grain Growers delegation raised a number of concerns with the Agriculture Committee. It was decided to resort once again to a Royal Commission to deal with them, although a few changes were made to the Act immediately.

This time the Commission was chaired by a farmer — John Millar, one of the founders of the Territorial Grain Growers and later M.P. for Qu'appelle. The other members were also producers — W.L. McNair and G.E. Goldie. They were charged with making a much broader investigation than that of the Commission of 1899. They were to examine "all or any matters connected with" the Grain Inspection Act and the Manitoba Grain Act. They were to look into the conditions in the wheat growing area, in the markets of Winnipeg, Toronto, Montreal and Liverpool and in the terminal elevators at the lakehead and the transfer elevators in Ontario and Quebec. The evidence taken amounted to over 22,000 pages and gave a clear overview of the trade at the time.

In October, 1907, the Commission published its report. In answer to continued complaints about conditions in the country, they suggested strengthening the powers of the Warehouse Commissioner. Many testified that Charles Castle was not doing enough to redress the farmers' grievances. The Commissioners found that the fault lay not with Castle but with the legislation. Among other things, the Commissioner was given the power to order the dismissal of an elevator operator found guilty of wrongdoing. If the person were not fired the elevator's license could be cancelled.

They also strengthened the Commissioner's hand in dealing with car allocation. They found that the car shortage was still causing the same problems it had in the past — lower prices for the producer. If the elevator agent knew he would have to wait a long time to get a car, he would offer a lower price to the farmer.

> We find the price paid for grain to the producer varies in the country markets to a considerable extent, according to the car supply at point of purchase. The car shortage has thus been a source of heavy loss to the grain producers in Western Canada this year, and aserious detriment to trade generally. (p. 8)

The solution, they felt, was to give the Warehouse Commissioner the power to direct cars to points at which there was a severe shortage.

The car order book provisions of the Act were not found to be working as well as they might have due to certain abuses. The major problem was that people were transferring their right to a car to others. They suggested that a $2.00 fee be charged upon making application, and that people write their names in the book in ink, so they could not be changed later.

It was also suggested that the Commissioner be appointed for a 10 year term, instead of at the pleasure of the Minister. This would give him more independence. We will discuss this measure, which was made part of the Act, a little later.

The Commissioners found no evidence of wrongdoing in the operations of the Winnipeg Grain Exchange.

The Commissioners also turned their attention to the terminal facilities at the head of the lakes. In appendix E of the report, they noted that the terminal business was passing into the hands of the private grain trade. In the years before 1904, it had been the exclusive preserve of the C.P.R.. By 1906 companies with lines of country elevators were beginning to buy terminal facilities. In point 8 of the appendix, the commissioners appeared to be in agreement with the Grain Growers associations on the significance of this development. They said:

> We believe the operating of terminal elevators by private companies under the present regulations would be detrimental to the interests of the trade, and would tend to destroy public confidence in the results obtained therefrom. Our reasons for believing this are, that the elevator companies (if they so wished) would be able to manipulate the grades for their own benefit, and not to clean up to the dockage set by the government inspector. (p. 39).

They did not, however, agree with the Grain Growers that the solution to this lay in nationalizing the terminals. They prescribed, instead, a "more thorough system of supervision and control" of the terminals.

Specifically, they sought remedies for complaints about dirty grain, discrepancies in weights between grain loaded at Fort William and grain unloaded at eastern elevators, and the possibility of mixing to promote grades. They recommended establishment of a separate and larger weighing staff to better supervise weighing. They wanted the inspection staff to be put in charge of binning and grading in the terminals. The separate weighing division was not set up until 1913, but the supervision of binning and cleaning was introduced as one of the amendments of 1908.

Passed in July 1908, these amendments included two new sections which established a much stricter "inspectorship" in the terminals. Inspection staff were now to supervise all binning of grain and all transferring of grain from one bin to another. Inspectors would also supervise the cleaning of grain to make sure the amount of dockage specified by them was removed. A single line of the new section established the practice which would develop into the "weigh-overs" of later years: "In the month of August each year stock shall be taken of the quantity of each grade of grain in the terminal elevators."

Although the Minister had asked them to also draw up a plan for a possible government owned elevator system, they concluded that it was too large and complex a question for them to deal with at that time.

In the years between 1908 and the introduction of the Canada Grain Act as Bill Q in early 1911, the main policy issue continued to be whether or not to nationalize the terminal elevators. In 1909 Commissioner Castle used the powers given in the 1908 amendments and carried out an audit of the grain in the terminals at the lakehead. It was discovered that the stocks and shipments of No. 1 Northern, in the case of two terminals, exceeded receipts by over one million bushels. There were corresponding shortages in lower grades and some of the surplus was no doubt due to not cleaning grain to the level of dockage required. Thus it was proven that grain was mixed to promote grades, as every western producer had suspected. The companies in question were prosecuted and fines were levied

Although the incident proved the effectiveness of the regulatory system, it was inevitably used as an argument in favor of the expropriation of the privately owned terminals.

At the same time, the provincial governments in the west were under pressure to take over and operate the country elevator systems. Manitoba and Saskatchewan took different courses. In Manitoba a provincial commission was set up which bought a large number of country elevators. Perhaps because of the large capital expenditure involved, the Commission did not prove to be a success and disappeared in 1911. In Saskatchewan, the matter was studied by a provincial Royal Commission chaired by Dr. Robert Magill, who was shortly to become the Chief Commissioner of the new Board of Grain Commissioners. Magill, in long and detailed report, argued against government ownership, advocating instead government financial backing for a farmer owned cooperative. The Saskatchewan Cooperative Elevator Company was formed in 1911 and operated successfully until it was taken over by the Saskatchewan Wheat Pool in 1924.

In December of 1910 a large delegation of farmers from all over Canada arrived in Ottawa for what became the founding meeting of the Canadian Council of Agriculture. In a three day meeting that came to be known as the Siege of Ottawa, they drafted a number of resolutions which they presented to the House of Commons. There was a large delegation from the western Grain Growers organizations and one of the points they contributed was an appeal for expropriation of the terminals. They recommended that:

> ...the Dominion government take steps to acquire and operate as a public utility, under an independent commission, the terminal elevators at Fort William and Port Arthur, and immediately establish similar terminal facilities and conditions at the Pacific coast, and... at Hudson Bay when necessary.

The Laurier government's response to the Grain Grower's representations was to introduce new legislation. In 1911, the Minister of Trade and Commerce, Sir Richard Cartwright, introduced a bill in the Senate the purpose of which was to consolidate all the grain industry legislation then on the books. The Manitoba Grain Act and the grain sections of the Inspection and Sale Act would be amalgamated, with very few additions, into a single new Act. Sir Richard was of the firm opinion that the bill should have a quick passage and resisted all requests for lengthy scrutiny by special committees or another Royal Commission. He said:

> No bill has ever passed parliament which has been so thoroughly considered or longer debated, and on which both sides have been more fully heard...

Another argument against prolonged discussion was the fact that there were only two important new clauses. He may have been motivated by a desire to avoid having the bill become an election issue — the general election was only months away. A newly passed Grain Act would also be of some benefit to the Liberals during the campaign.

This first Canada Grain Act, however, like all its predecessors and successors, was not destined to make it through the House without controversy. The issue in 1911 was the two new clauses which dealt with, not surprisingly, terminal elevators.

The new bill did not opt for government ownership, nor did it leave the resolution of the terminal controversy entirely up to a strengthened inspection department. It proposed the novel solution of prohibiting a company which operated country elevators and thus purchased grain, from owning a terminal. Specifically, the bill stated that:

> No person owning, managing, operating or otherwise interested in any terminal elevator shall buy or sell grain at any point in the Eastern or Western Inspection Division." (Section 123).

The reasoning behind this approach was that a terminal operator storing and handling only grain in which he did not have an interest would not be tempted to mix grades or ship dirty grain.

Needless to say, the section brought down the wrath of the grain trade upon the government. Senator Lougheed of Alberta argued in favour of a special committee to discuss the issue, on the grounds that the clause amounted to "confiscatory legislation". He said it was unjust to grain companies owning country and terminal elevators and that they should have a chance to present their case.

Senator James Douglas — the same member whose bill had led to the Manitoba Grain Act a decade before — spoke eloquently for the opposing view:

> If you have a wrong, it will not improve it to cover it up. If you have a malady and there is corruption to the bone, then probe it to the bone and let us get rid of it... Out in the west the belief is that the evil is just there. That you cannot enforce a system of inspection that will prevent frauds that have developed and that exist... (Senate Debates, March 15, 1911 p. 354).

The matter was finally referred to a select committee of eight senators who were to hear evidence on the offending sections and to make a report. The committee sat from March 21 until March 30 and the testimony covered 208 pages. Companies with country elevators and terminals argued that the new law would put them out of business because neither branch of their business would show a profit without the other. The Grain Growers and the Dominion Millers Association argued that no inspection system could be proof against wrongdoing and that the new Act offered the only safe method for handling grain.

The section was left in the bill and was passed into law in 1912, although it does not appear to have been enforced. As will be seen later, other methods were chosen to increase control over the terminals and allay the producers' concerns.

Bill Q was not passed before the election of 1911. The terminal question was an election issue, the Liberal-Conservatives of Robert Borden promising voters they would nationalize the terminals and the Liberals holding to their proposed Act. In 1912, with a new government in office, Bill Q was resurrected and passed unchanged on April 1.

CHAPTER 2

ORGANIZATION 1900-1912

The organization which developed to administer the regulatory legislation between 1900 and 1912 was not a unified agency. Grain inspection was the most important function carried out, and supervising weighing at the terminals occupied 74 of the 84 employees of the Western Inspection District in 1905. Of the other 10, eight were clerks and the remaining positions were those of the Warehouse Commissioner, C.C. Castle and his assistant. At the lakehead there were 10 full time inspectors and weighmasters, and 14 part time men who were simply called assistants. In Winnipeg the staff was larger, with 17 full time and 33 part time staff. Between 1900 and 1958 all grain going east from Winnipeg was inspected in Winnipeg, and so the Winnipeg inspection staff was always much larger that it has been in recent years. Many of the 33 part time men were probably samplers who sampled every car of grain that passed through Winnipeg.

There had been grain inspection in the west since 1884, with inspectors appointed by the Minister of Inland Revenue on the recommendation of the Boards of Trade of Winnipeg and Fort William. These officials were paid out of the inspection fees they collected. David Horn, who was appointed as the first Chief Inspector in 1899 and Frank Gibbs, who was to become a member of the first Board of Grain Commissioners in 1912 had both started work as inspectors in the 1880's. Horn was a native of Glasgow who came to Canada in 1867. He worked in the grain and milling business in Ontario before coming west to fight in the Riel Rebellion of 1885. In 1889 he succeeded Captain Clark as grain inspector at Winnipeg. At the end of his career as an inspector he returned to the grain trade, forming a company to trade in grain and operate an elevator at the lakehead.

By the turn of the century the feeling that grain inspectors should be government employees was fairly widespread, probably because it was thought that this would remove the inspectors from the position in which they could be manipulated by the person paying the inspection fee. In 1901, David Horn was part of a royal commission set up to look into problems with grain inspection at Montreal and one of the Commission's findings was that:

> ...in some fifty-two instances during the past year, in which the inspection made would not warrant the inspector in certifying the grade expected or demanded, his grading was not accepted, and no certificate was issued, and the parcels were either sold by sample, or certificates procured from some other source, no fees being paid the inspector in any such cases, nor any surveys demanded to settle who was in the wrong.
>
> It does not seem to the commissioners proper that the trade should have it in their power to withhold the fee when the certificate is not to their liking, nor, on the other hand, should there be any incentive on the part of the inspector to cultivate business. The commissioners therefore consider that instead of by fee, the inspectors and all officers or employees connected with grain inspection should be paid by salary. (Royal Commission on the Inspection of Grain at Montreal, 1901, p. 43).

A first step away from payment by fees was taken in the revision of the General Inspection Act in 1899. This established that all fees collected by Grain Inspectors would be paid into the Western Grain Inspection Fund, from which wages and expenses would be paid. This arrangement was carried over into the original Manitoba Grain Act of 1900 (section 47). All expenses, including apparently the salary of the Warehouse Commissioner, were paid out of this fund.

In July 1902 the Fund was abolished and the system still in use today (1985) was described in an amendment to the Act. As a result of this amendment all fees were paid into the Consolidated Revenue Fund and the expenses of the Western Inspection Division were paid out of the appropriation for the Department of Trade and Commerce.

The Western Inspection Fund was an unusual method of meeting expenses at the time and there was a lengthy correspondence between the Auditor General and the Deputy Minister of Trade and Commerce during 1901 and 1902, during which both parties attempted to untangle the problems the system had caused. (Auditor General's Report. 1901/2)

A serious shortcoming of any system totally dependent upon fees was the wide fluctuation in income brought about by the differences in size of crop from year to year. Although the Western Inspection District produced a surplus of income over expenses in most years, there were short crops, like the harvest in the fall of 1900. In that year the fees collected did not meet expenses and the House of Commons was called upon to vote $7,000.00 in emergency funds. This amount was paid back the following year out of the surplus. After 1902, a more secure source of income was available in the form of the vote for the Department.

As the volume of grain passing through the system increased, more inspectors and weighmen were hired to deal with it. In 1905, as we have stated, there were 84 employees; by 1911, the last year before the establishment of the Board of Grain Commissioners, the staff had grown to 295. In that year there were 173 staff at the head of the lakes, 46 of them full time. At Winnipeg there were 158 people of whom 46 were full time. There were also 10 employees at Duluth and 8 at Calgary, where primary inspection for grain going south and west was done.

In addition to the full time staff, a system of auxiliary Boards had developed over the years, to help administer the inspection system. After 1883 the General Inspection Act provided that the Board of Trade of Winnipeg would have the power to appoint a Board of Grain Examiners. Winnipeg thus joined a group of eastern cities where the Examiners were chosen in this way. The Board of Grain Examiners was to consist of five "fit and skillfull persons" whose duty it was to examine candidates for an inspector's certificate. No one could be appointed to act as a Grain Inspector unless he had passed this examination.

This system continued until 1925. After 1904 the Board was appointed not by the Board of Trade but by the Minister. After 1912 the power to appoint was passed to the Board of Grain Commissioners. The secretary of the Winnipeg Board throughout its history was Charles Napier Bell, who also served as the Secretary of the Winnipeg Grain Exchange, the Board of Survey and the Grain Standards Board.

The Board of Examiners would, from time to time, place a notice in the Winnipeg papers stating that persons wishing to be examined should apply for information. Applicants had to provide recommendation from three "well known and responsible parties" and if accepted they had to pay a $20.00 fee to cover the Examiners expenses. This fee, a substantial amount in 1900, was lowered to $4.00 after the Civil Service Commission became more involved in the process after 1918.

The exam consisted of practical grading. The Chief Inspector participated in the process by selecting 100 grain samples. Each candidate had to grade all the samples. If they were correct in 75% of the cases they were given a deputy inspector's certificate. If their score was 85% or higher they earned an inspector's certificate. These certificates did not assure the successful candidates of a job inspecting grain, only eligibility for any jobs that became available. The certificates were also of value to men seeking employment in the grain trade, as proof of knowledge of the grading system.

Prior to 1900 it is not likely that the Board of Examiners was very active, due to the small number of inspectors in the west. In 1900 there was an examination and five recipients of certificates were given jobs — the first men appointed under the new Manitoba Inspection District. George Serls who would be Chief Inspector after 1912 and Fred Symes who was to become Chief Inspector at Fort William were first appointed in this year.

The second Board which developed in the early years was the Grain Standards Board. This Board was first mentioned in the Inspection Act in 1889 as a group of 11 people chosen by the Minister to select the standard samples for the various grades of grain. After 1891, in the west, this board also had the responsibility of choosing the samples for the commercial grades of grain.

In 1899 amendments to the Inspection Act took the function of choosing the samples for the statutory grades away from the Board and gave it to the Chief Inspector and his staff. The Standards Board continued to set the standard for commercial grades.

The final board was the Grain Survey Board. The function of this group was to hear appeals from owners of grain who were not satisfied with the grades given by an inspector. Before the turn of the century, the Boards of Trade in the various cities had the right to name these appeal tribunals. After 1899, in the west, the responsibility for appointing the 12 member board was divided between the Board of Trade in Winnipeg and the ministers of Agriculture for the North West Territories and Manitoba.

The routine of appeal was to go first to the Chief Inspector and ask for a reinspection and then to the Survey Board, if the owner was still not satisfied. Alternatively, an appeal could be made directly to the Survey Board, by-passing the Chief Inspector altogether.

During this period, the responsibility for the grading system was slowly being shifted from the Boards of Trade to government appointed officials. After 1899, when a Chief Inspector for the Western Division was appointed, he played a major role in all areas — helping to set exams for the inspection certificate, choosing the standard samples for statutory grades and receiving grading appeals. This trend, along with the strengthening of producer representation in the grading system, was to continue.

In part these changes may have been due to agitation from the organized farmers. As early as 1883 the Farmer's Union had called for government appointed grain inspectors. The next year, they objected to the examination of potential inspectors by the Board of Grain Examiners appointed by the Winnipeg Board of Trade. In 1892, the president of the Patrons of Industry complained that there was no agricultural representation on the Grain Standards Board. The platforms of these early groups are described very ably by Brian McCutcheon Auley in his article, "The Birth of Agrarianism in the Prairie West" *Prairie Forum* 1(2) 1976 pp. 79-94.

A new figure in the Canadian grain trade was the Warehouse Commissioner. In this early period the Commissioner was a secondary figure to the Chief Inspector. Charles Castle was never paid as much as David Horn, and he did not have a very large staff at his disposal. The Commissioner was governed by the Manitoba Grain Act, whereas inspection and weighing were dealt with in the General Inspection Act and its successors, the Grain Inspection Act and the Inspection and Sale Act.

In 1900 Charles Castle had been one of the Commissioners on the Royal Commission, chosen partly because he was a farmer. He was offered and accepted the job of Warehouse Commissioner the same year. The office was modelled on the one of the same name in Minnesota, except that the American commissioners were three in number and were elected officials.

In the beginning Castle had the power to hear complaints about weighing, dockage or any unfair treatment of farmers by country elevator operators, to make an investigation and write a recommendation. If his decision were not accepted or acted upon he was to refer the matter to his Minister who could take legal action. This system was first tested in 1902 in the Sintaluta Case which has been described elsewhere. From that time up to the present the number of actual court cases has been relatively small. But the power of the government official to carry matters to a final conclusion is invaluable and makes it more likely that agreement will be achieved at a lower more informal level than the courts.

The other major duty of the Warehouse Commissioner was the licensing of country and terminal elevators, as well as companies and individuals involved it the grain trade. Castle issued licences and established the amounts of bonds which these companies and individuals had to take out as a safeguard for their customers and creditors. Castle was also required by the act to keep a collection of publications in his office which could be referred to by the public and which would contain up to date information about grain prices on the major world exchanges. He was also to be given various statistical reports by the trade concerning the movement of grain through the system, a function that was to develop over the years into a very important part of the Board of Grain Commissioner's work.

As with anyone in a mediation role, there was some dissatisfaction with Castle and this was made known in testimony before the Royal Commission of 1906. The Commissioners reported:

> These complaints were chiefly of slackness in prosecuting offenders under the Act, the offences being principally violations of the provisions governing the Car Order Book. (p. 17 of the Report).

They concluded that the fault lay not with Castle but with the Act, and they suggested a number of amendments to increase his powers and to give the Commissioner a fixed term of office.

The new powers granted the Commissioner have been described in the previous chapter. The 1908 amendments also gave Castle the power to enforce his decision in disputes at country points by ordering the suspension of an elevator operator for one year, if wrongdoing could be proven.

In addition to the added powers placed in the act, the Royal Commissioners wanted to strengthen Castle's position by enacting a fixed 10 year term. This was the source of some controversy at the time. At a conference called to discuss the royal Commission's proposals in 1908, George Langley, a member of the executive of the Saskatchewan Grain Growers, said that this recommendation was one of the few to which organization objected. He stated that:

> The Grain Commission (sic) is supposed to represent the farmer's interest, and the principle farmer's interest, but unfortunately he is no sooner appointed than he leaves the farm and he becomes located in the midst of those whom we, as farmers, look upon as our opponents in this question...Consequently, we are anxious that he should be amenable all the time to the power which we have in

> reserve, which is the power of saying periodically at least, what man we will approve of... but, if he is put there for ten years and lives for ten years in that atmosphere to which I have referred instead of continuing to be a representative of the farmers, the word representative at the end of that time should be spelled with a mis before it. (1908 Grain Conference, p. 4)

Langley, for the same reasons, objected to the fact that both Castle and Horn had seats on the Winnipeg Grain Exchange. He stressed that it was important for the Commissioner and the Chief Inspector to "preserve as far as possible the confidence of the farmers". (p.6)

Charles Castle answered these points in two letters to Sir Richard Cartwright written shortly after the conference. As to the question of having a seat on the Exchange, he found that there were some benefits. He had, for example, been able to purchase seed grain for distribution to homesteaders in Alberta and Saskatchewan on behalf of the provincial governments. In this way he had saved those governments a good deal of money.

Castle saw the fixed term as giving a person in his position more independence from pressure. He wrote:

> Placed in the position that I am, as an arbitrator between the farmer and the various allied grain interests, it very naturally follows that where cases of disputes are referred to me for decision, the decision...can hardly satisfy both parties... the same identical case might be submitted to the courts, and should either party be dissatisfied, an appeal to a higher court can be entered, but in such case neither party would dream by newspaper agitation... of denouncing the judge. In my case however, it is different, as if one of the parties are dissatisfied he can publish all sorts of statements in the press without let or hindrance.

In this letter, we get a sense of the difficult and perhaps rather lonely position Castle found himself in. It is revealing that while Langley referred to the Commissioner as the "representative" of the farmers, Castle saw himself in the very different role of "arbitrator" between the farmers and the trade. While Castle was correctly interpreting his role as laid down in the Act, the expectations of some farm leaders were different. This difference of view point was to lead to more misunderstandings in the future.

CHAPTER 3

BACKGROUND 1912-1930

The period from 1912 to 1930 was in many ways a golden era in Western Canadian agriculture, although it held the seeds of the catastrophic decline and readjustment that was to take place in the 1930's. The expansion and development of the west which had begun in earnest in the late 1890's continued. Although the rate of immigraiton had slowed, the production of wheat greatly increased. Western expansion was spurred on by investment from Eastern Canada and elsewhere and these investments paid handsome dividends, contributing to a higher level of prosperity in the rest of the Dominion. The political influence of western farmers reached unimagined levels in this period. In the election of 1921, 38 of 44 prairie seats went to the Progressive Party, which could be said to be the political wing of the organized farm movement. Farmers were successful in securing a number of major concessions during this period beginning with the Canada Grain Act and including the Agricultural Instruction Act which granted $10,000,000 to the provinces to build agricultural colleges and the legislation of 1921 which allowed for the re-establishment of the Wheat Board. Of course farm leaders did not enjoy unqualified success. The elevator system was not nationalized, as some had demanded, and the Wheat Board was not in fact re-established in spite of the fact that the legislation was passed. Compared to organized farmers in earlier years, however, western prodcuers enjoyed great influence at this time.

This influence was in part due to the contribution western farmers were making to the national economy, through the export of ever increasing amounts of grains and oilseeds. There were some remarkable crops in this period, like those of 1915 and 1923 in which years both yield and quality was very high. Between 1925 and 1928 each harvest produced a new record, although frost damage and wet harvesting conditions did lower the quality. The fall of 1929 saw a short crop due to dry conditions — a gloomy foreshadowing of the years to come.

Prices fluctuated wildly during this period, reaching an all time high at the end of the war and then declining ruinously to a low point in 1923. There was some recovery in the later 1920's before the long decline of the 1930's.

Although the massive influx of settlers which occurred in the first decade of the century slowed somewhat after 1911, people continued to come. The numbers of people employed in agriculture rose from 282,000 in 1911 to 405,000 in 1921 and 443,000 in 1931. The number of farms increased from a little under 200,000 in 1911 to 255,000 in 1921 and 288,000 in 1931. There was a huge increase in the area of land under cultivation which stood at 16.5 million acres in 1911 and grew to 32 million and then 40 million in the two subsequent census years. Most of this increase took place in Alberta and Saskatchewan, especially in the northern parkland areas. The area of farmland in Manitoba remained fairly fixed.

Western producers experimented with mechanization during this period, although conditions were not yet ripe for full scale conversion to motor driven farm equipment. During

World War I when labor was scarce and grain prices were high, many farmers purchased gasoline tractors. Between 1918 and 1920 the federal government bought tractors and resold them to farmers at cost. But it would be another 20 years before the tractor was a viable alternative to the horse for most western farmers. Ankli, Helsberg and Thompson identify three reasons for this. In the first place it was still cheaper to work with horses than to buy and operate a tractor. Tractors were not yet dependable mechanically and there were very few service outlets. Many farmers did not have the surplus cash to purchase a tractor. (Ankli, R. et al. the Adoption of the Gas Tractor in Western Canada, *Canadian Papers in Rural History*, Vol. 2, 1980, p. 35)

In 1930 the Dominion Government turned over control of crown lands to the three prairie provinces. This event is seen by many as the end of the "colonial period" in the west. It marks very clearly the end of the settlement period during which the Department of the Interior actively promoted the development of the west through the offer of free homestead lands. There is much difference of opinion about the ultimate success of the Department's policies but it cannot be ignored that two and one quarter million people came to the prairies between 1870 and 1930 and that they transformed the plains from a wilderness into a productive farming area. As R.G. Riddell said in 1940:

> But the achievement is there. More than two hundred million acres of land surveyed and opened to settlement; a population of two and a quarter million where, in 1870, there were only a few thousands; five hundred million bushels of wheat grown in one year in a region which, in 1870, could not support even a handful of settlers. (A cycle in the Development of the Canadian Wheat, *CHR* 21(3) 1940 p. 284).

Grain exports continued to earn Canada more money than any other item, although they were surpassed on one or two occasions by pulp and paper. Canada's position as a grain exporter was strengthened during the period because of the disruption caused by the war which removed major competitors like Russia and areas in Eastern Europe from the marketplace.

The infrastructure necessary to handle the Canadian crop continued to develop although not as quickly as it had in the 1900 to 1912 period. The number and capacity of country elevators rose from 1997 and 62.1 million bushels in 1911 to 5071 and 172.1 million bushels in 1931. The increase in terminal elevator capacity was even more remarkable. In 1911 there were 46.5 million bushels of terminal and mill elevator space, mostly at the lakehead and in eastern Canada. By 1930 this figure had grown to 221.3 million bushels. The amount of space at the head of the lakes had increased by almost four times, to 92.9 million bushels — a level that was not to change greatly for many years. The port of Vancouver increased its terminal capacity from nothing in 1912 to 20 million bushels in 1930. Most of this capacity was built in the late 1920's. The building of government terminal elevators on the prairies had added several million bushels capacity and in 1928 and 1932 respectively terminal facilities in Prince Rupert and Churchill began to handle grain.

The design of terminals became fairly standardized in this period. Materials for building bins that had been tried in the early years of the century to increase capacity and reduce the risk of fire — steel and fireproof tile — gave way to concrete and brick. The government terminals, typical of the elevators built in these years, all had concrete bins and brick workhouses. Hopper scales gradually increased in capacity to handle the larger grain cars and generally speed up the process of weighing grain. Some mechanization began replacing human labor. The first automatic car dumpers and automatic samplers were installed in the 1920's.

As will be seen in the subsequent sections, the staff of the Board of Grain Commissioners was greatly increased to supervise this growing infrastructure.

This seemingly relentless growth was not to last and the influences that brought it to an end were already at work in the 1920's. Canada's position as a major grain exporter was based in the short run on shortages produced by the war and in the long run on the steady growth of industrial Europe and industrial Europe's population. The war had stopped the growth of population on the continent and had left many European countries in disastrous economic conditions.

Major customers for Canadian grain, like Germany, began to move toward self sufficiency in food production. Tariff barriers were erected and subsidies were paid to farmers. This had the combined effect of reducing food imports and strengthening the politically conservative rural population so they could act as a bulwark against the radical politics of the urban working classes. In 1932 even the United Kingdom imposed a tariff to protect her farmers, partially closing the door to what had always been Canada's best market.

Shrinking markets did not result in reduced production in Canada. Wheat output was greatly increased during World War I and continued to grow through the 1920's. The stage was thus set for the disastrous decline in prices which occurred in the 1930's.

One of the most important changes in the Canadian grain trade in this period was the increasing role of the farmer owned cooperative companies. The Grain Growers Grain Company was organized in 1907, and after some initial difficulties, took its place amongst the large grain concerns on the Winnipeg Grain Exchange. By 1921 it was operating its own terminal at Fort William and a line of country elevators. In Saskatchewan the government had loaned mortgage money to the Saskatchewan Cooperative Elevator Company in 1911. By 1921 these two farmer owned companies operated 645 or 16.5% of the country elevators in the west, as well as three terminals at the head of the lakes. During the decade that followed, the wheat pools were organized and entered the elevator business. The Saskatchewan Wheat Pool bought up the line elevators belonging to the Saskatchewan Cooperative Company and built many of its own. By the end of the 1920's the U.G.G. and the Pools controlled 37.2% of the total number of country elevators and 13 terminals at the lakehead, Vancouver, Victoria and Prince Rupert.

More significant than their entry into grain handling was the important position the cooperative companies came to occupy in grain marketing during these years. As in the case of elevator ownership, the first preference of many of the organized farmers would have been for the government to control the marketing of grain in a monopoly role. When it was found that this option had insufficient support on both economic and political grounds, the farmers organizations entered the field themselves.

The government had intervened in grain marketing during the war, using its' extraordinary wartime powers under the War Measures Act. This happened for the first time in December of 1915, when Sir George Foster commandeered 15,000,000 bushels of wheat at Fort William and eastern points to ensure supplies for Great Britain and the allies. Robert Magill, as Chairman of the Board of Grain Commissioners, acted as the Minister's agent at the head of the lakes, and secured the wheat there. He also countersigned the cheques that were issued to the owners of the wheat and certified the transfers of the wheat. The decision to seize the wheat was taken because of the fear that if such a large quantity were purchased in the regular way, the price would have skyrocketed.

It was concern over rising prices and speculation that motivated the government to intervene again in disposing of the crops of 1917 and 1918. For those two years a specially created body, called the Board of Grain Supervisors, took control of the entire crop. The Board did not purchase grain but controlled its allocation between domestic users and the Wheat Export Company, a wartime organization which purchased grain for the allied governments. Robert Magill, by now the Secretary of the Winnipeg Grain Exchange, served as the chairman of this Board of Grain Supervisors.

For one more year, in 1919, the government held a monopoly in the marketing of the Canadian wheat crop, again because of concern that speculation would drive up the price of grain. This time their agency was the Canadian Wheat Board. This agency was similar to its modern day namesake in that it purchased grain using a two price system. When the farmer brought his grain into the country elevator, the manager, operating as the agent of the Wheat Board, bought it at a set price. The spreads between street and track prices were set by the Board. In addition to the initial payment, the operator gave the farmer a certificate entitling him to a final payment which would be calculated after the crop was sold and based upon the average price received in the market.

Many farmers found the government monopoly a more stable and satisfactory method of marketing their grain than the open market of the Grain Exchange. In spite, however, of the lobbying and pressure of farm groups like the Canadian Council of Agriculture and of the members of the Progressive Party in the Commons, the Wheat Board was not reinstated. As a result the farm community turned its attention to cooperative marketing. As H.S. Patton says:

> As the failure of the interprovincial campaign for public ownership of elevators at an earlier period had led the organized Grain Growers to undertake the cooperative ownership and operation of elevators, so in 1923, when the futility of the campaign for the re-establishment of government marketing became conclusive, the western farmer's organizations turned their efforts from the direction of government compulsion and monoply to voluntary and cooperative action. (p. 210)

This voluntary and cooperative action came in the form of the wheat pool movement. The wheat pool called for a different kind of cooperation than farmer owned companies like the U.G.G. in that there was no share and dividend system. Members pooled their wheat together and sold it, receiving an initial price and a final payment based on the average return realized on the whole pool. The Wheat Pools which were organized in each of the prairie provinces in 1923 and 1924 were very successful in the 1920's when prices were fairly high. In the following decade, when prices fell to very low levels, the Pools were to experience the disaster of having made higher initial payments than the crop eventually proved to be worth.

Because the success of the pool depended upon handling a large percentage of the crop, massive drives to get farmers to sign a contract with the Pool for the delivery of their grain were a feature of the early years of their development. The selling of the pool idea was helped by the persuasive oratory of Aaron Sapiro, a California marketing expert who travelled through the prairie provinces in 1923, speaking at pool meetings. In that year the Alberta pool organization was successful in getting contracts to handle about one third of the crop in the province. Similar success was enjoyed the next year in Manitoba and Saskatchewan. In August of 1924 the three Pools organized the Central Selling Agency to market their wheat through the Winnipeg Grain Exchange. At the country point, line elevator companies, both private and cooperatively owned, handled pool grain under a contractual agreement. Under these agreements, the elevator manager elevated, graded, weighed, stored and shipped the grain which the farmers were placing in the pool — in short they did everything but buy and sell the grain. This situation, in which other companies acted as the agents of the Wheat Pools, was soon found to be unsatisfactory. For one thing, after the Central Selling Agency began to acquire terminal space, leasing in 1924 and buying in 1925, it was felt that a line of country elevators was needed to ensure a sufficient flow of grain through the terminals to produce a profit. All the prairie pools, therefore, established elevator companies. The Saskatchewan Pool's elevator operation quickly became the largest when it bought the Saskatchewan Cooperative Elevator Company's line of elevator and their two terminals at the lakehead. As H.S. Patton points out:

> Thus in the second year of its existence Saskatchewan Pool Elevators Ltd. had become the largest integrated elevator system in Canada, if not the world. (p. 236-7).

This problem of the pool terminals being consigned grain by farmers who were participating in the Pool led to demands for changes in the Canada Grain Act, to allow farmers to specify the terminal to which they wanted their grain shipped. The amendment was strongly opposed by the private grain trade, as we shall see in the next chapter.

One effect of all this expansion in the cooperative sector upon the private trade was to force private companies to amalgamate and become larger and more efficient. At the end of the 1920's a number of smaller companies were consolidated into larger concerns. Federal Grain Ltd., incorporated in 1929, took in nine smaller companies with 338 country elevators and three terminals at the head of the Lakes. Also in 1929, the various companies belonging to the Searle family of Minneapolis were consolidated and became Searle Grain. These and a number of other mergers are discussed in some detail in MacGibbon's *The Canadian Grain Trade*, 1932, p. 323-238. MacGibbon points out that the trend continued through the 1930's and 1940's. The consolidation reached what was probably its final stage in the 1970's.

CHAPTER 4

BOARD 1912-1930

The first 18 years of the Board's existence were crucial ones. It was a time of testing for the Grain Act and the Board that was to administer it. The organization took shape in the first two or three years under Dr. Magill, and did not see any major changes until the 1970's, when the Government Elevators were sold off. Probably Magill's greatest accomplishment was the establishment of this organization to administer the new Act. The second Chief Commissioner, Leslie H. Boyd, took over in 1917 and did the equally important, though less glamorous work of running the new Board and making the small changes that were necessary over the next few years.

The problem facing Magill and Boyd was not an easy one. Like Charles Castle, they bore a heavy responsibility as mediators in disputes between the producers and the trade. They were expected to regulate the trade not only at Thunder Bay, where they had a large staff, but in the country, where they had no staff at all. Because it had been such an important political issue in the years leading up to 1912, special attention was focused upon the regulation of terminal elevators. In addition to these regulatory and quasi judicial functions, the Board was responsbile for administering the grading and inspection service, through the Chief Inspector and his staff, and the various boards which participated in the system. All this had to be done within the environment of a constantly expanding grain trade, with all the various stresses that ever larger crops entailed.

The first Chief Commissioner, Dr. Robert Magill, served from the spring of 1912 until December, 1916. Born in Ireland, he studied for the presbyterian ministry and in 1899 earned a doctorate at the University of Jena, in Germany. He began an academic career in Ireland and then came to Canada and taught at Dalhousie. He had served on the Saskatchewan Royal Commission of 1910, which enquired into the country elevator situation. As chairman, he wrote a balanced report which earned him the gratitude of the Premier, Frank Scott, who used the findings to help extricate himself from a tight political corner. Some farm leaders were demanding government control of the country elevators, but Magill advocated instead a government loan to a farmer owned cooperative which could buy up and run some of the country elevators. Magill had also served on commissions of enquiry in Nova Scotia, and it was the premier of that province, George Murray, who recommended him to Sir George Foster, the minister of Trade and Commerce, when Foster was looking for someone to head the new Board of Grain Commissioners. Of Magill, Murray said. "There is damn little he couldn't do in any sphere." (PAC MG).

Magill was not a political appointee in that he was not really a partisan of either major party. In fact, he had been asked by both parties to run for election in Nova Scotia and had refused. He was no doubt seen as an intelligent man who could steer a middle course. He obviously won the respect of the grain trade, since they lured him away in 1916 to become secretary of the Winnipeg Grain Exchange. He also had the confidence of at least some farmers, because when it was announced that he was leaving his post at the end of 1916, the United Farmers of Alberta passed a resolution asking him to stay on and pressing the government to raise his salary.

Magill's first colleagues on the Board were W.D. Staples and Frank Gibbs. Gibbs had been a grain inspector at Fort William since the 1880's and had been the inspector in charge there under David Horn. W.D. Staples was a farmer from the Elm Creek area of Manitoba. Between 1904 and 1912 he sat in the House of Commons as the Conservative M.P. from Macdonald constituency. In 1913, after only a year on the Board, Frank Gibbs passed away. He was replaced by J.P. Jones, a native of Ireland who had homesteaded in Manitoba before going to Winnipeg to work in the grain business. At the time of his appointment, Jones was managing the Empire Elevator Company terminal in Fort William. When he left the Board, he became general manager of the Consolidated Elevator Company.

Charles Castle, who had served as Warehouse Commissioner from 1900 to 1912, had expected to be part of the new board, perhaps even the Chief Commissioner. When the new act was passed, he moved from Winnipeg to Fort William and continued to receive his old salary. In 1913, the Deputy Minister of Trade and Commerce, T.C. O'Hara, wrote to Sir George Foster, explaining that Castle had expected to be the Chief Commissioner, and had been encouraged to not take a job with the Grain Growers Grain Company on the grounds that when there was an opening, he would be appointed to the Board. When Frank Gibbs died and J.P. Jones took his place on the Board Castle resigned in disgust. (PAC RG 20 v. 1634, file no. 7555).

Matthew Snow, who had been Castle's assistant Warehouse Commissioner since 1905 was also kept on staff as a Deputy Inspector in Winnipeg. In 1922 Snow became secretary of the North West Grain Dealer's Association and in 1923 he was appointed as a member of the Board and served in that capacity until 1929. Born in Edinburgh, Snow had farmed near Wolseley, Saskatchewan before being appointed as Assistant Warehouse Commissoner.

What were the qualifications needed by a member of the Board of Grain Commissioners? In November of 1916, when he was leaving his position, Dr. Magill wrote to Sir George Foster on the subject of choosing a successor. Magill did not mention any names but felt that two sorts of expertise were needed — those of an economist and those of a lawyer. He said that because of the legal nature of much of their work, "...I have frequently had the feeling that a good deal could be said for having a lawyer on the Board as Chairman of it." (PAC).

He then speculated that while legal talent could always be hired when required, a good knowlege of economics was always needed on the board. Leslie Boyd, who took Magill's place was a lawyer, so that Magill's musings may have had some influence on Sir George's choice.

Boyd himself, some years later in 1928, had some things to say about the qualities needed in a Board member. In defending the idea of a minimum 10 year term for the Board members he said:

> The position is a very important one, and if you want to get men who are willing to take the job, they will only take it if it is for a period of time which will give them a decent living out of it. The men you select are going to be selected from men... who have knowledge and experience of the grain trade and they will not give up their present positions unless you make it sufficiently attractive for them. (Report of the Agriculture Commiteee, 1929, p. 708).

Leslie Hale Boyd was appointed Chief Commissioner on March 27, 1917, to replace Dr. Magill. Boyd was a native of Montreal who, at the time of his appointment was established as a lawyer in that city. He had run unsuccessfully for the provincial legislature as a Conservative and had served for a number of years on the city council. Boyd never enjoyed the support of the organized farmers. The Grain Grower's Guide called his appointment "strange" and complained that the farm movement had not been consulted.

In 1922, the two other Commissioners, W.D. Staples and J.P. Jones came to the end of their terms. They were replaced by M. Snow and a new face, James Robinson who had been a director of the Saskatchewan Cooperative Elevator Company from 1911 until his appointment. He was the first representative of the organized farmers to sit on the Board.

Robinson's appointment was greeted with approval by the Grain Grower's Guide, the organ of the Grain Growers movement. The Guide described him as a man who had "enjoyed the confidence of the farmers of Saskatchewan for many years." The writer went on to say:

> It is undoubted, however, that the Board of Grain Commissioners had lost the full confidence of the farmers who have felt that the Board was not as diligent in the protection of the interests of the farmers as it could have been, and as it ought to have been. Today, on account of the change in personnel, the confidence has been in large measure restored. (Jan. 3, 1923).

Criticism of the Board, however, was to continue.

The powers given the Warehouse Commissioner in the Manitoba Grain Act were passed on to the Board as a whole in the new Act. The Board was to investigate any complaint made to them in writing, under oath, of a case of excessive dockage or unfair weights or grades, or any instance of unfair dealings between a country elevator operator and a producer. They were empowered to call witnesses and hear them under oath and to examine the books and records of the elevator in question. Their decision was delivered in writing and it could be appealed in a court of law. The most important tool at their disposal was the power to cancel a license. They could levy fines under the Act, but they could not compel parties to abide by their decisions in disputes.

The Board also had the same powers as the Warehouse Commissioner had had over the shipping of grain. It ensured adherance to the Car Order Book and directed the Railroads to supply cars out of turn in certain emergency situations. As had been the case under the Manitoba Grain Act the Board could order that temporary railroad agents be placed at shipping points with no station but with enough grain shipped to warrant one. It received requests for the erection or repair of loading platforms and approved or denied the requests.

There were some changes to the sections of the Act dealing with grain shipping in the 1912 to 1930 period. In 1925 the Car Order Book provisions were altered to allow elevator operators to order two cars at a time to the producer's one car.

The growth of the prairie wheat pools in the mid 1920's led to demands for another amendment — one which was vigorously opposed by the private elevator companies. Farmers contracting with pools and shipping their grain through non pool country elevators, wanted the right to specify that the grain should be delivered to a pool terminal. The other elevator companies argued that the profitability of their operations depended upon being able to ship grain from their country line elevators to their own terminals.

In 1925 the matter was debated before the Agriculture Committee by representatives of the wheat pools and Dr. Magill and others representing the private trade. The amendment that was passed in 1925 allowed farmers merely to specify the terminal port they wanted their grain to go to.

In 1926 the matter was raised again when a private member M.N. Campbell M.P. for MacKenzie, introduced an amendment which gave farmers the right to specify their choice of terminals. The amendment passed in the Agriculture Committee and the House of Commons. It was then held up in the Senate where the arguments of both sides were made once again before the Banking and Commerce Committee. Parliament was dissolved before the upper house took any action. The right was secured in the 1930 Act, although the matter became less and less important as the lines of country elevators owned by the pools were expanded.

Another issue which came to a head in the mid 1920's was the change that some elevator managers were deliberately falsifying weights. As insurance against being short in his receipts of grain, an operator would record and pay the farmer for less grain than was actually delivered. At the end of the year, an overage was thus created. When this matter was discussed before the Turgeon Royal Commission in 1924, the Board passed a regulation allowing the elevator companies a shrinkage allowance — a percentage of all grain taken in to cover losses which occurred naturally during handling. Shrinkage had been allowed before this, but only for special bin grain. Now it could be taken on all grain. It was hoped this would eliminate the temptation for the manager to cheat on weights.

At the terminal points the Board regulated grain handling through the inspection and weighing departments for the most part. It did have direct responsibility, after an amendment of 1915, for complaints about shortages in shipments out of terminals into vessels. If there was any complaint about the weight of grain shipped it could be sent to the Board and it would investigate, just as it did with complaints from country points.

An important issue at terminal points continued to be the question of overages. In the period from 1912 to 1930 two major changes were made in the way overages were handled. Prior to 1914, terminal elevator owners had customarily purchased grain to make up for any shortages in the total amounts of each grade stored in their elevator. If, any overages were discovered at the time of the annual weigh over, the terminals kept them. Dr. Magill concluded that this system encouraged overages in the higher grades and shortages in the lower — a situation that could come about because of mixing. After 1914, therefore, the Board ruled that all shortages had to be made good using grain from the next higher grade. A further step was taken in 1919 when the Act was amended to say that all overages in excess of .25% of the total amount of grain received by the elevator could be seized and sold by the Board, the money to be used by the Board as it saw fit.

The practice of mixing different grades of grain while in store in the terminals was completely prohibited in the 1912 Act. In 1925 this prohibition was relaxed to a certain extent through the device of a special "private" elevator license. The operators of such terminals could mix different grades of grain. However, they could not take in grain that did not belong to them and when the grain was shipped out it was inspected to ensure that it was of a quality equal to the average of the same grade leaving the public terminals.

This change was not made without a struggle. The familiar objections were raised before the Turgeon enquiry and before the House Agriculture Committee. W.R. Motherwell, the Minister of Agriculture, warned that mixing could lower the general quality of export shipments and ruin Canada's reputation. John Millar objected that all the profits from mixing went to the trade and the farmer who grew the grain got no benefit. Speaking before the Committee on behalf of the Grain Exchange, Dr. Magill argued that mixing was going on anyway and the amendment merely recognized the fact and gave the Board the opportunity to regulate it.

Under the Manitoba Grain Act the Warehouse Commissioner had had some control over tariffs in that terminal elevator operators were required to submit their rates to him every fall and the minister could set a maximum rate. Under the 1912 Act this provision remained with the difference that the Board now had the power to set the maximum rates for storage and handling and cleaning of grain and the charges for insuring the grain. The terminal companies filed their rates with the Board in September and after 1919 in August. These rates were made known by the Board and if there were objections the Board held hearings to consider them. Once the rates were published they could not be changed and every shipper of grain had to be charged the same rates.

The second function of the Board, to administer the organization that carried out the provisions of the Act, was an entirely new responsibility. The Warehouse Commissioner had been an arbitrator alone and had had almost no administrative work to do. The Chief Inspector had supervised the bulk of the staff of the Western Inspection Division until 1912.

After 1912 the new Board of Grain Commissioners was expected to oversee the work of the Inspection branch and all the other branches as well. Magill inherited an inspection and weighing staff and some clerical workers in 1912. By the end of 1916, when he left the the Board, he had established a Registration office, a licensing and bonding office, a laboratory, the beginnings of a statistics division, a separate weighing division and the Government Elevators department. The regulatory agency he established functioned unchanged in form until the 1960's, when amalgamation of some units took place.

In the first years it appears that members of the Board were involved in a good deal of direct management work. Staples and Jones, for example, participated directly in buying the land and supervising the construction of the first government terminal in Fort William. Over the years, however, the Board built up a group of managers to handle this direct work and free it for their more important mediator role. In 1925 the Turgeon Royal Commission report still showed concern over this matter and advised the Board to hire more clerical and technical staff to reduce their routine management duties. (Royal Commission Report, 1925, p. 155).

An important figure in the administrative work of the Board was the secretary. In the first year of operation Magill reported that the Board had to depend upon a staff of one clerk and three stenographers, "...a staff which is totally inadequate now to the work." (1913 Annual Report, p. 72). The Board had employed a Secretary starting in May of 1912. The next year, the secretary Charles Birkett was earning the princely sum of $2,500.00 per annum — about four times the salary of the stenographers who worked for him. He was obviously expected to perform an important function. Perhaps the most important in those early days was to attend the meetings and hearings of the Board and prepare written decisions for their signature. The secretary, then, acted as a clerk of the court while the Board was exercising its mediator role.

The secretary and his staff took on a management role themselves in that they came to be responsible for personnel matters. Especially after 1918 when the Civil Service Commission began to play a larger role in the hiring of staff for the Board, the secretary became the liaison between the Board's managers and the Deputy Minister of Trade and Commerce, who in turn dealt with the Civil Service Commission. By 1929, Leslie Boyd was describing the secretary as:

> ...not only the secretary of the Board but he is really the general manager of all the staff of our different departments. He has his finger on the pulse of every division and every branch that we have, and he knows the staff, and he handles the staff of the Civil Service... (1929 Agriculture Committee Report, p. 727).

The secretary's staff in 1930 was not greatly expanded over that of 1913. He had a principal clerk and two other clerks, a secretary to the executive and one stenographer.

A matter that had a direct bearing on the work of the Board was the location of the headquarters. The Warehouse Commissioner had been located in Winnipeg but the Board was to do its work from a base in Fort William. The motivation for this may have been the concern of politicians to show that the terminal elevators would be well and truly regulated. From the beginning it caused some inconvenience and expense. In his first Annual Report, Magill stated (p. 73):

> The production of grain is all west of Winnipeg. At Winnipeg are the headquarters of the inspection, transportation, financing, trading and storing of grain. Even the terminal elevators are managed from Winnipeg. Nothing is more necessary to the Board than close and constant touch with the producers, carriers and traders of grain. To keep in such touch from Fort William is difficult and expensive.

The possibility of moving the headquarters of the Board from Fort William to Winnipeg was discussed again in 1925. Needless to say the people of Fort William were against the move. In a submission to the Agriculture Committee in June of 1925 a delegation from the lakehead reminded the members that the city had constructed a building to house the Board in 1912, the cost being subscribed by various citizens. It was argued that the move would result in tremendous losses for the business community of the city. In the House, on June 20th, the honorable R.J. Manion the M.P. for Fort William-Rainy River argued that all the major issues concerning the Board were dealt with at the head of the lakes. He cited mixing and the disposition of screenings as two examples. In reply to these arguments T.A. Crerar stated that:

> The function of the Board of Grain Commissioners is a judicial function and not an administrative function. It is a judicial function to see that the provisions of the law in respect to licensing, bonding and all other matters that relate to the conduct of that great business in the Dominion may be lived up to. (House of Commons Debates, June 20/25, p. 4609).

He then pointed out that 90% of these matters were centred in Winnipeg, and concluded that the Board should be there also. In 1929 Boyd addressed this problem once again in his testimony before the Agriculture Committee, pointing out the number of extra miles that Board members were forced to travel. In reality, the Board had had a presence in Winnipeg since 1923 when Maurice Snow was made a member. Snow stayed in Winnipeg, handling the work of the Board there. In the 1930 revision of the Act the board was given the power to decide where its headquarters would be located and in that year it moved to Winnipeg to offices in the Grain Exchange Building.

The 1920's were not years of smooth sailing for the Board of Grain Commissioners. Attacks and criticism came from a number of quarters. The Act was subjected to major amendments in 1925 and again in 1929 and 1930, as the conflicting interests of the grain industry tried to shape the legislation to suit their purposes.

The first important attack on the Board came in the form of a challenge to the constitutionality of the Grain Act. The challenge was based on the fact that the grain trade was essentially a provincial matter under the B.N.A. Act and a federal law and a federal agency could not legally regulate it. The matter first came up in 1921, while the Hyndman Royal Grain Inquiry Commission was holding sessions. In June of that year the United Grain Growers and the Northwest Grain Dealer's Association asked for an injunction to stop the Commission's proceedings on the grounds that the federal government had no right to enquire into matters that were under provincial jurisdiction. The request for an injunction also stated that the Canada Grain Act was ultra vires the Federal Parliament. This created a situation in which the legality of all the actions of the board were brought into question.

An opportunity to clear up the matter came in 1924 when the Eastern Terminal Elevator Company refused to surrender overages from their terminal at Fort William to the Board, as it was required to do under the Act. The Minister of Justice, Ernest Lapointe, sued the company. The case went all the way to the Supreme Court where it was finally decided that the Canada Grain Act gave the Board powers that it could not legally exercise under the B.N.A. Act. In the judgement written by Justice Lyman Duff, and in a letter to the Minister of Trade and Commerce from Chief Justice Newcombe, both written in May of 1925, it was suggested that the situation could be remedied by making a simple addition to the Act. In the house on May 11, Thomas Low, the Minister of Trade and Commerce said:

> In view of the judgement that has just been rendered by the Supreme Court of Canada, it has been thought well to embody in the Act a declaration to the effect that all elevators shall be considered works for the general advantage of Canada. (H. of C. Debates, May 11, 1925, p. 3039).

This statement was placed in the Act in 1925. With the exception of the period from 1930 to 1939, this section has been used as the solution to the constitutionality question.

A different sort of assault was made on the Board in the later 1920's. The manner in which the Board was performing its role came in for some sharp criticism in the testimony before the two Royal Commissions of the 1920's — the Federal Turgeon Commission of 1925 and the Saskatchewan Brown Commission of 1928. The reports reflected this criticism.

The regulatory powers of the Board were discussed in the Report of the Turgeon Royal Commission on pages 154 and 155. The Report concluded that the Board was not doing enough to keep in touch with conditions in the grain producing area. Many small disputes that might have been settled by the Board were not referred to it and as a result festered and caused resentments. The farmers "...had an inadequate knowledge of the duties and powers of the Board and of the means of appealing to it." (p. 154). The answer Jodge Turgeon felt, was not to appoint more members to the Board but to hire more clerical and technical staff to take some of the administrative burden from the shoulders of the Board members. Then they would be free to travel more and hear grievances in the country. The recommendation was made that the Board should be an itinerant body, holding sessions at various points on the prairies and keeping in touch with the concerns of the producers.

These criticisms were repeated more forcefully in the report of the Brown Royal Grain Inquiry carried out in the province of Saskatchewan in 1928. In his interim report, J.T. Brown wrote:

> "We have found throughout Saskatchewan a general feeling of dissatisfaction with the administration of the Canada Grain Act by the Board of Grain Commissioners as presently constituted." (page 17).

The average farmer saw the Commissioners as remote; "...with him they are almost an unknown quantity, and very far removed and detached."

The reasons for this, suggested the report, were that the Board's headquarters were too far away from the producing area. Also the duties of the Commissioners had increased tremendously since 1912 without a corresponding increase in support staff in their own offices.

The Board members themselves saw some justice in these criticisms and offered their own ideas as to possible solutions. In their testimony before the Agriculture Committee in 1929 they held that assistant commissioners were needed to travel around in the country doing some inspection and some mediation work. From 1912 to the early 1920's the Board had employed travelling inspectors in varying numbers from one or two to five or six. These men were stationed in various prairie cities and travelled around the country. They were issued with a standard report form which they filled out for each station they visited. The form was printed in the 1912 Annual Report and it had spaces for comments on the condition of the scales, number of cars in the car order book, the condition of the loading platform, whether only legal forms are used by the agent and a number of other subjects. By 1925 the Board apparently no longer employed such inspectors and from the Royal Commission Report it can be concluded that they were missed.

What Boyd and his Board were suggesting was not a return to this travellng inspector position but full fledged assistant commissioners who would do the inspections but also have powers delegated by the Board to mediate in disputes. (1929 p. 703). When pressed by members of the Agriculture Committee for not keeping in close enough touch with producers, Boyd suggested that the appointment of assistant commissioners to hear cases at country points would take care of this problem. The only difficulty that stood in the way was the fact that these men would be paid rather low wages under the Civil Service schedules. Boyd argued that if they were appointed instead by the Minister, as the other Commissioners were, the wages provided could be made more attractive and it would be easier to get able men. (1929 Agriculture Committee Report p. 705). In the 1930 Act this is how they were appointed and their salaries were controlled by the minister.

During his testimony in 1929 Boyd was asked what he would recommend in the way of strengthening the powers of the Board. One of the more important recommendations Boyd made was that it be given more independance in making its regulations. Specifically, the Act stated in a number of places that the Board was to act with the approval of the Governor in Council. Boyd asked that the approval of the cabinet no longer be required for many of these actions, such as establishing the location of the headquarters of the Board or regulating the registration and cancellation of warehouse receipts.

Boyd and Snow, the two commissioners at the committee hearings, were also asking for a more fundamental addition to the Board's powers. Under the Act as it then stood, the Board could hear complaints and issue a written decision. Beyond that it had no real power to compel the parties to abide by the decision, other than revoking a license — an extreme action that might do more harm than good since it would take valuable storage and handling capacity out of use. If, for example, the Board found that an elevator company owed a farmer $100.00 more than they had paid him in a certain transaction, the Board could say so, but it could not order the company to pay the $100.00. If the company had contravened some section of the act and was liable for a fine, the company would have to pay the fine, but that did not help the farmer who was still owed his $100.00. In reality, Boyd testified, companies normally paid such amounts, but they were really not required to do so under the Act. In order to compel a payment, recourse had to be made to a court of law, where the judge would hear the case and order the payment. Boyd wanted the Board of Grain Commissioners to have powers similar to those of the Board of Railway Commissioners making it a de facto court with the power to compel payment. Appeals from their decisions would go directly to the appeal court of the province in which the decision was handed down.

Boyd also wanted all the various sections in the Act which mentioned the powers of the Board to be consolidated. He asked that the provision that complaints to the Board had to be made under oath and in writing before they could be investigated be removed. (1929 Agriculture Committee Report, pp. 772-775).

In reading the testimony of the Commissioners in 1929, an impression forms of men exhausted by the stresses of the job. Leslie Boyd says, at one point, that his eyes are troubling him and that his doctor has forbidden him to read. Later the same year Mr. Boyd and the other Commissioners, M. Snow and J. Robinson resigned. Within a year, Robinson had passed away. A new, fresh Board was waiting in the wings to take up the challenge.

CHAPTER 5

INSPECTION 1912-1930

The inspection system was fully developed by the time the Canada Grain Act was passed in 1912. Few changes were made in the new Act, except to place grain inspection securely under the control of the new Board of Grain Commissioners. The Chief Inspector and his staff were responsible to the Board. The Board would now appoint the Board of Grain Examiners and the Grain Standards Board and have the power to approve the persons appointed to the Grain Survey Board. After 1919 they would appoint that group as well.

This is not to say that the inspection division lost any of the freedom from outside influence that was essential to its role. The policy of the board was to not interfere. In a memorandum written by Dr. Magill for Sir George Foster in 1915, Magill said:

> It must be remembered that the inspection department is a very independent department... While the Board of Grain Commissioners has a certain measure of authority with regard to the appointment of the Standards Board, the Examiner's Board and Survey Boards, once these boards are appointed and engaged in their actual work, they are entirely independent of the Board of Grain Commissioners, and this is as it ought to be. The Grain Commissioners are not graders of grain. In the actual work of grading grain the inspectors must be free to exercise their best judgement, and they must be responsible to their own department and to the Survey Board. (Memo of April 16, 1915, PAC Winnipeg file no. 39550).

Fourteen years later, Commissioner Boyd said something very similar during his testimony before the Agriculture Committee in 1929:

> ...I have refrained from interference with the inspection of grain as carried on by the inspectors, so long as we thought that they were grading the grain in accordance with the Act. (Agriculture Committee Report, 1929, p. 707).

When the Grain Act was passed in 1912, it was provided in section 8:2 that all those holding positions under the former Acts would be continued in the employ of the Board. Chief Inspector Horn chose to resign, after being a grain inspector since 1887. He went into the elevator business and operated a terminal at the lakehead until 1918.

The new Board's Chief Inspector, George Serls, and the first inspector in charge at the head of the lakes, Frank Symes, had both been inspectors under Horn since 1900. Many others continued working under the new regime.

The ever-increasing volume of grain, coupled with the opening of new export points and inspection offices led to increases in the inspection staff in the period from 1912 to 1930. In 1912 the inspection staff, part time and full time, numbered 133 at the head of the lakes and 140 in Winnipeg. During its first year of operation the Board added about 100 new employees, the largest increases being in inspection and weighing. The Board of Examiners was very busy at this time, awarding 80 inspectors and deputy inspectors certificates between 1911 and 1914. In the remaining ten years of its existence it awarded another 53 certificates.

The largest group of employees of the inspection department were those employed to take samples of grain from the boxcars as they passed through Winnipeg on the way east or through Calgary on the way to Vancouver. Much of the sampling staff was temporary, being taken on during the rush season from September to December and then let go. There was also a small clerical staff to handle the vast amount of paper work involved in the inspection process in the days before automation. Inspectors and deputy inspectors were stationed at Winnipeg and Calgary and at Duluth, which latter port handled a lot of Canadian grain at the time. There were inspectors for eastern grain at Toronto and Montreal and flour mills in Kingston and Peterborough. By 1916 the inspection offices at Peterborough and Kingston had been closed and new ones had been opened at Moose Jaw, Saskatoon and Medicine Hat, in flour mills at those points.

The decision to increase the number of inspection points in the west had not been an easy one. As early as 1912 various western towns were asking that inspection offices be opened in their boundaries. Cora Hind, the well known journalist, wrote to Magill to lobby for an inspection office in Lethbridge. After agreeing with the sense of her arguments he wrote that:

> ...it would be easy to so multiply the inspection offices that the weight of machinery created and the expense involved would more than destroy the benefits of the inspection system. (PAC MG letter of November 6, 1912).

Costs were a major concern for Magill. Many parts of the inspection service ran at a deficit, saved only by high volume locations like the lakehead and Winnipeg, where enough grain was inspected to generate sufficient fees to pay expenses and yield a surplus. Magill pointed out in his first annual report that in Minnesota inspectors were placed in flour mills only if the company were willing to absorb any deficits that resulted from expenses being greater than the fees collected. It was on this basis that inspection and weighing services were provided to Canadian mills after 1912.

Working conditions of the inspectors were not easy. Normal working hours were from 7 a.m. to 6 p.m. daily in 1914. During the fall rush work was done in shifts, 24 hours a day. Inspectors were expected to comport themselves according to a set of rules and regulations. They were to:

> ...keep their own counsel and avoid talking as much as possible with elevator operators and employees, vessel officers and employees, and endeavour to work in harmony and without friction. (1915 Annual Report, p. 15).

This difficult stance was necessary, since they were expected not only to grade grain but to supervise its handling. They were empowered, for example, as they are today, to stop the loading of a ship if they noticed:

> ...anything going to the shipping bin or holder of the vessel which... would effect the proper grade of the grain in question... No more grain must be discharged from the shipping bins thus shut off until the inspector is satisfied that the grain in the hold of the vessel and the grain in the shipping bins is of the proper grade. (1915 Annual Report, p. 14).

It is clear, then that the inspectors were no longer simply providing a grain grading service, but were regulators of the grain trade, making sure everyone obeyed the rules.

> Inspectors' duties are more than to merely define the grade of grain. His jurisdiction and duty extend, to a certain extent, over everything pertaining to the proper handling, transportation and grading of grain. It is his duty to take note and have cognizance of every branch, and to report to the Board of Grain Commissioners, through the proper offices, any irregularity in any department of the service. The successful carrying out of the Grain Act and the work intended for the Board of Grain Commissioners will depend largely on the integrity and cooperation of the

inspectors. (Ibid p. 16).

In the first four years of the Board's existence the majority of export grain passed through the Lakehead or Duluth. Increasing amounts of grain were shipped from Vancouver, but these did not become significant until after the first war. The inspection staff at Calgary was gradually expanded to handle this growing flow of grain. In 1912 there was one full time inspector and seven part time men at Calgary; in 1914 there were two full time and 19 part time workers and in 1918 the numbers had grown to 11 full time staff plus 6 staff in Vancouver.

Primary inspection at Winnipeg and Calgary had been instituted in amendments to the General Inspection Act in 1899. Samples were taken from each grain car as it passed through the primary inspection points and the grades were assigned before the car reached the terminal elevator to be unloaded. This system gave the owners of the grain the opportunity, through their agents in Winnipeg and Calgary, to apply for a re inspection before the carload was dumped into the mass storage bins in the terminals and the identity of the grain lost forever. Cars would be resampled when they were unloaded at the terminal and graded by inspectors in the elevator. Inspectors also graded grain as it was shipped out of the terminals into ships or grain cars, putting the grade on the Inspection Department Certificate which was the ultimate buyer's guarantee that he was getting what he paid for.

Car sampling at Winnipeg and Calgary was done in essentially the same manner in 1912 as it was in the late 1950's when it was discontinued. Gangs of 12 to 14 men sampled each grain train while it paused in Winnipeg to change crews and engine. One man walked along the train breaking the seals on the doors of the cars. A sampler equipped with a long metal probe and a ladder opened the door and climbed up inside the car, on top of the grain. He then stabbed the probe down into the grain at a specified number of points and drew up samples. The probe consisted of a pole with a number of cavities in it. This was sheathed with a metal casing with holes to correspond to the cavities. When the probe was forced down into the grain the cavities filled with grain at various levels down to the bottom of the car. Then the sheath was rotated, trapping the samples of grain. The samples were poured out on a piece of canvas spread out near the door. A supervisor followed the samplers along the train, climbing up to check the samples and mix them together. He then poured the sample into a canvas bag and wrote a ticket to identify the car it came from. This bag was hung on the side of the car.

When all the sampling was complete the bags were collected and the doors resealed. The samples were taken to the Inspection Department's office in the rail yard and a clerk made a record of all the samples and car numbers. Several times a day boxes of samples were taken to the inspection offices in the Grain Exchange Building where the inspectors would grade them.

This sampling procedure was very hard physical work. It required a good deal of strength to push the probes down into the grain. If the grain were tough or damp the work was more difficult. In the busy season the gangs worked in shifts, day and night. Often there was not much room between the top of the grain and the roof of the car, so the work was backbreaking to say the least. If the car were too full, sampling and grading would have to be postponed until the grain reached the terminal and was unloaded.

The nature of the job made it difficult to keep samplers. In a letter written in May 1918, George Serls the Chief Inspector described some of the problems:

> When help is wanted for sampling we have always had to go around the city and pick them up as best we could. The sampling of cars is such hard work that it is almost impossible to get men to stay at it. During the months of September and

> October, we are engaging men every day on account of so many quitting after they have tried the work. (PAC RG80 v. 36).

Describing the samplers in a note written in 1985, E.E. Baxter recalled:

> Working at night as well as day and in the bitter cold of Canadian winters, theirs was often a miserable task... The staff operating out of primitive accommodations in the railway yards of Winnipeg and other primary points was a breed unto itself, rough and tough but resiliant and reliable. Sometimes it was a first step up the ladder to be a qualified grain inspector, but often it was a job with which they both started and ended their Board employment.

There exist two very complete accounts of the inspection process in the early years — one given by David Horn in his testimony before the Senate Committee considering the Canada Grain Act in 1911 and one written by Dr. Magill in his book Grain Inspection in Canada, in 1914.

Once the samples arrived at the inspection offices they were graded by deputy inspectors. They worked only between 9 a.m. and 3 p.m because, explained Chief Inspector Horn in 1911, "we do not think the light certain enough" outside those hours. (Report of the Select Senate Committee on Bill Q, 1911, p. 175).

Each sample was dumped out of its canvas bag onto a large sheet of brown paper. About half the sample, half a pound or so, was cleaned. At Winnipeg the resulting screenings were weighed in order to set the dockage. In Fort William it was the practise to weigh the cleaned grain instead of the screenings. (Magill, p 35). The deputy inspector examined the sample and assigned a grade, sometimes using the standard samples for the various grades to help him. He wrote down the grade and dockage and passed the sample on to the clerical staff to complete the work of recording the grade. The inspectors did not know where the sample came from so they could not have any bias in their grading.

The clerks made out a certificate which was sent to the owner, informing him of the grade and dockage. They also made out a sheet with the car numbers, grade and dockage. This was sent by express train to Fort William so that it would arrive in advance of the grain itself. The sample was placed in a metal box and kept in the sample room in case there was a complaint about the grading and a request for an appeal.

If the owner wished to protest a grade or the dockage, he or his representative would contact the Inspection office and a telegram would be sent to the lakehead, asking that the car in question be held and not unloaded into the terminal elevator. The Chief Inspector, and then if the owner were still not satisfied, the Grain Survey Board, would look at the sample again and either uphold or change the original inspector's decisions.

When the car arrived at the head of the lakes it was binned and cleaned according to the grade and dockage assigned in Winnipeg. Cars were only sampled and graded on unloading at the terminals if they were too full to be sampled in Winnipeg, when they had gone out of condition, when re sampling was required for a survey or when they had been found to be plugged when they had been sampled in Winnipeg. Plugged cars were ones in which substandard grain was hidden under a load of grain of a higher grade in the hope that the whole car would receive the higher grade.

Between 1908 and 1914, all binning and cleaning and movement of grain inside the terminal elevators was under the supervision of the inspection staff. Magill concluded in the latter year that this system was too costly and added little to the effective control of the terminals and so it was abandoned. Thereafter, inspection staff were only concerned with the grain as it moved into or out of the elevator.

When the grain was shipped out, inspection staff sampled it on the belt as it moved from the storage bin to the scales to be weighed, on the way from the scales to the shipping bin and once more as it flowed into the holds of the ship. There was no time to send samples to a central office for grading and inspectors had to decide on the grade as the grain was moving. If they felt the grain being loaded was not up to the grade called for, they stopped the elevator until the situation was rectified.

The sample from each shipment was bagged and sent to the inspection office in Fort William where it was checked by the staff, to make sure it corresponded with the certificate. Part of this sample was sent to Winnipeg, where it was kept in case the final buyer questioned the quality. The sample would then be available for investigation. This entire process was documented by clerical staff, working with pen and ink, adding figures in their heads.

The First World War had a profound effect on the work of the Board. It was difficult to find men to do inspection and other work, many having joined the armed forces or gone to work in factories. The inflation brought on by the war resulted in salaries losing value. By 1918 and 1919 Board employees found themselves worse off than other grain trade workers. This was in spite of the 10% war bonus that was paid to compensate for the rise in the cost of living and of two pay increases authorized by order in council in 1914 and 1917.

In 1918, with the passage of the revised Civil Service Act and regulations, a new era began for the Board. The new act expanded the powers of the Civil Service Commission, which previously had been confined to administering examinations for positions in the civil service that were filled by competition. After 1918 a far greater number of government jobs were to be filled by competitive exam and a complex system of grades and categories of workers was established. Rates of pay were tied to the categories. This structure was designed to establish the merit system and confound attempts to hire civil servants solely on the basis of their political loyalties.

The Board had some problems fitting its staff to the new system, especially with regard to inspection and weighing personnel. These departments depended heavily upon temporary workers, hired to work in the busy season from the harvest to the close of navigation on the Great Lakes. Depending on the size of the crop, many of these workers were laid off when the rush was over.

The Civil Service Commission felt that competitions were the best way to fill these jobs. Correspondence from the spring of 1918 shows that officials of the Board found this unrealistic. George Serls has already been quoted above, describing how he had to hire samplers off the street, and how difficult it was to keep men because of the onerous conditions of work. Finally the Civil Service Commission agreed to accommodate him by allowing the Board to hire people without competition, but they required that the names and starting dates of the workers be reported so that they could be issued a certificate, making the appointment official.

There continued to be friction with the Commission and in 1925 the Turgeon Royal Commission recommended that allowances be made because of the special nature of the Board's work.

> We do not recommend that this branch be taken out from under the Civil Service Commission but we think that care should be taken by the latter body to frame rules adapted to the particular exigences of the grain trade. There is no doubt a need for much greater elasticity in the relations between the Civil Service Commission and the inspection and weighing departments. (Royal Commission Report, p. 155).

The other major problem at the end of the first war was low wages. Before the passage of the new Civil Service Act, wage increases could be submitted to the Minister for his approval. The new Act tied wages to classification and all government worker's wages were increased at the same time. The Board thus lost some control over the wages paid to their employees.

At the same there was a good deal of pressure from both the staff and the chief inspector and chief weighmaster to raise wages. In September of 1918, George Serls wrote to R.L. Hetherington, secretary of the Board:

> I find there is considerable dissatisfaction among the staff in regard to the salaries which they are receiving. (PAC RG 80 v. 36 letter of Sept. 19, 1918).

The following month, Hetherington wrote to the Deputy Minister of Trade and Commerce, recounting how a clerk on his own staff had left to take a higher paying job.

> This is typical of conditions in the city at the present time, and the Board feels that, if it is to retain the services of competent clerks, some effort must be made to meet the salaries paid by other concerns. (PAC RG 80 v. 36 letter of Oct. 19, 1918).

In June of 1919, at the time of the Winnipeg General Strike, G.D. Robertson, the Minister of Labor, was in Winnipeg. He was visited by a delegation of employees of the Board accompanied by the Vice President and two members of the Winnipeg Grain Exchange. Robertson reported, in a letter to the Minister of Trade and Commerce, that it was:

> ...stated by the officials of the Winnipeg Grain Exchange that these men are very important to the service, and that competent grain inspectors are entitled to much higher rates of pay than these men are receiving; further that they were being paid a much lower wage than prevails in the ordinary clerical staff of the exchange itself, which employees work along side of your men. (PAC RG 80 v. 36 letter of June 9, 1919).

The employees, who had formed themselves into the Western Federal Grain Employees Association, had other grievances. They pointed out that there was no travel compensation for workers at the Saskatoon or Moose Jaw Government elevators, who had to travel several miles from town to get to work.

Salary increases were dealt with in part by the new Civil Service Reclassification bill, passed that year. Travel compensation was referred to the Board for action.

Another result of the increased role played by the Civil Service Commission was the questioning of the continued need for the Board of Grain Examiners. Under the 1912 Grain Act the Board of Examiners was responsible for certifying grain inspectors. This conflicted to a certian extent with the powers of the Commission. In 1920 the Secretary of the Board of Examiners, C.N. Bell, wrote to Hetherington and asked him to get some ruling from the Commission about the Board's role. The Commission decided that it would share responsibility with the Board. The Commission would place advertisements when exams were to be held and make appointments from among the successful candidates. The work of preparing and administering the examinations would still be done by the Board of Examiners. This situation continued until 1924.

The Board of Grain Commissioners wanted the Board of Examiners to continue to function and said so in a memo covering various aspects of the revisions to the Act in 1925. (PAC RG 80, v. 3, Memo of April 28, 1925). This was not accepted, however, and the 1925 Act contained no mention of the Board of Examiners. Thenceforth exams were set by the Board of Grain Commissioners.

In several of the later annual reports, the Board of Examiners asked that the practise of issuing certificates to successful candidates be continued by the Commission, "as these certificates are of great value and assist the holders in obtaining positions in the grain trade outside of the Grain Inspection Department." (Annual Report of the Board of Grain Commissioners, 1923, p. 5).

The 1925 Royal Commission of Inquiry into the Canadian Grain Trade examined the inspection system in some detail and the Commission's report provides a snapshot picture of the division as it existed thirteen years after the passage of the Canada Grain Act. In general, Judge Turgeon and the other commissioners found that there was widespread support for the inspection system. They explained the importance of the grading system to the orderly and successful marketing of Canadian grains. They had learned that Canada's British customers preferred to buy on certificate rather than by the other methods available.

During the hearings, however, complaints were made about the specification of grades, sampling, grading and dockage. Witnesses had said that the grade definitions were not clear enough. Also, "there appeared to be fairly wide distrust in respect to the sampling of cars." (p. 46). The grading was felt to be too severe, especially with regard to moist grain or grain that was damaged by frost or disease. The complaints about dockage were really made against the country elevator operators and there was a limited amount the Board of Grain Commissioners could do to remedy them.

Redefinition of grades to clarify the meaning of words like "sound" and "plump" was not undertaken, although changes were made in 1930. The changing of the names of grades from Manitoba Northern to Canada Northern. This was requested by farmers outside Manitoba. No change was made because it was believed that it would lead to confusion amongst buyers. "Manitobas" were offered for sale until 1970, when the name was finally dropped.

The sampling and grading functions were seen as being central to the Canadian marketing system. Samples taken from grain cars were called "the keystone in the arch of Canada's grading system" (p. 51). The most effective safeguard, in the opinion of Turgeon, was to hire dependable men and train them well.

> ...we cannot urge too strongly the importance of having in the employ of the inspection department a thoroughly honorable and capable staff in the sampling branch of this work. The confidence of the producer and of the purchaser of grains in the sampling must be established and maintained. (p. 51).

A few pages later he pointed out that the grain inspector must:

> ...possess full knowledge of the specifications of the grades, a knowledge of the uses of grains, quick and accurate powers of observation, the ability to make quick and accurate decisions, and in addition, he must be reliable and temperamentally suited for doing exacting work of this kind. (p. 55).

The report also stressed the need for a laboratory so that subjects like "protein content, the quality of gluten, moisture determination and moisture content for safe warehousing, bleached wheat and wheat damaged by disease and frost" could be made "subjects of thorough scientific investigation." (p. 47-48). In this way the grading system would more nearly "meet the conditions of grain production and marketing over so large an area as the three prairie provinces." (p. 47).

One last important recommendation of the Commission Report was the alteration of the appeal procedure. In 1925 the Board of Survey was still in existence and it acted as a final appeal for those not satisfied with the grade assigned to their grain. Complaints were taken first to the Chief Inspector and then to the Board, or they could be taken directly to the Board. The Commission felt that it was an anomoly for a Board which contained no trained grain inspectors to be in a position in which they were expected to "alter or sustain the judgement of Canada's Chief Inspector." (p. 58). It was recommended that the Chief Inspector should have the whole responsibility of "grading and of maintaining the integrity of the Canadian Certificate Final" including the responsibility for the final appeal. (p. 58-59).

As a result, in the Western Inspection Division – Calgary and Winnipeg — the Survey Board was abolished and a Board of Grain Appeal was established. This new board was chaired by an Appeal Inspector, a trained grain inspector, and included eight others appointed by the Board of Grain Commissioners.

The Royal Commission thus came out in favor of a highly qualified inspection staff to safeguard and have ultimate responsibility for the system. At the same time credit was given for the quality of the work that had been done, often under difficult conditions.

The Inspection Division was scrutinized twice more in the 1920's — once by a Saskatchewan Royal Commission of Inquiry into the Grain Trade in 1928 and once by the Agriculture Committee of the House of Commons. The same complaints were made but no new solutions were put forward.

The most important grading issue of the later 1920's was the question of using protein content as a grading factor. This had been touched upon by the Turgeon Royal Commission (p. 48) but it was the Agriculture Committee that conducted an exhaustive inquiry into the subject in 1928 and 1929. There was a good deal of interest among western farmers in protein because it had a role in grading just across the border in the north central states. In milling centres like Minneapolis, where the bulk of the American red spring wheat crop was consumed, there was often a heavy demand for high protein wheat. This demand was increased in the 1920's because of changes in the American baking industry. Large mechanized bakeries began to appear and the new processes required "strong" wheat with good quality gluten — often synonomous with high protein wheat — to withstand machine mixing and absorb more water. Protein laboratories were set up in marketing centres like Minneapolis and Kansas City to segregate high protein wheat, and bonuses were paid for shipments with high percentages of protein.

Canadian farmers were growing the same wheat and naturally wanted to benefit in the same way as their neighbors. Some western M.P.'s, like John Millar, took up the cause and proposed various plans, including one under which samples for protein analysis would be taken in the rail yard at the same time grading samples were taken. In the early spring of 1928 there was enough interest in the idea for the Agriculture Committee to pass the following resolution:

> ...be it resolved that... the National Research Council... in conjunction with the Board of Grain Commissioners be asked to investigate and report on the feasibility of utilizing the protein content of wheat as a basic factor in the grading of that product.

The Committee itself was also to take evidence and make recommendations to the Board and the Research Council. Over the next two years the members of the Committee heard many hours of testimony on the issue, but in the end concluded that there was no practical method of changing the grading system to accommodate protein.

Perhaps the major reason for this decision was that it was not established at that time that the British and European millers who were the chief buyers of Canadian Grain were willing to pay a premium for high protein wheat. They purchased wheat from many different sources, unlike the millers of Minneapolis, and baking was not as highly mechanized as it was to become in later years.

There were also difficult logistical problems to be solved. It would have been impossible in 1929 to pass a bonus payment back to the original producer of the wheat. In the 1920's close to 50% of the wheat leaving the west was sold at the country elevator as street wheat, so that when the bonus was paid the elevator company would benefit, not the producer.

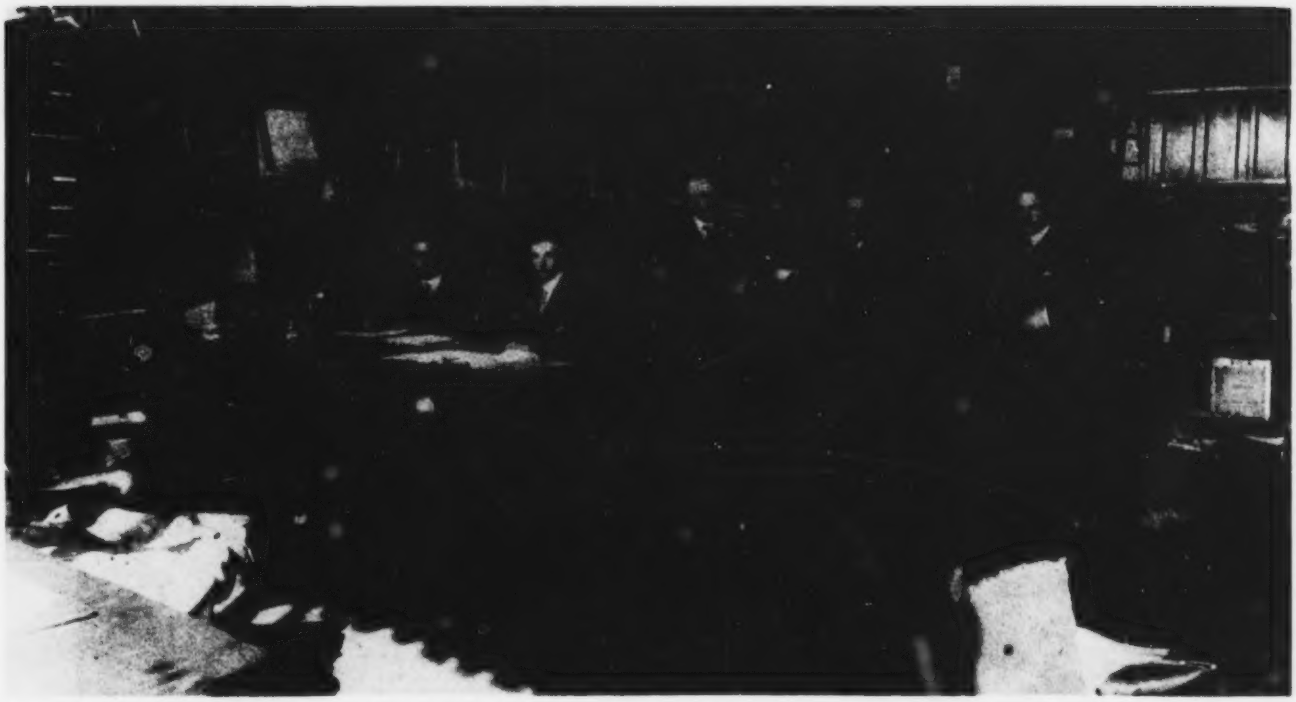
It was felt that the introduction of protein grading would seriously disrupt the existing grading system, creating two parallel systems. The only means of testing for protein content was the complex and relatively expensive Kjeldahl method. It was the conclusion of several of the witnesses that a good deal more research needed to be done. Robert Steele, an official of the Saskatchewan Wheat Pool said:

> I think there is a lot in protein, but I do not feel satisfied that anything like the research work has been done that is necessary before any definite change could be made in the grade. (1929 Agriculture Committee Report, p. 691).

L. to r. unknown, David Horn, J.D. Fraser. In the inspection office in the BAWLF Building, Princess Street, Winnipeg, c. 1900.

David Horn, Grain Inspector at Winnipeg 1889-1900, Chief Inspector, 1900-1910.

L. to r. unknown, D.D. Campbell (special shipper's agent), David Horn, W. Hutchuson, Hugh Hobart, Dave McBeath, W. Withers, unknown, Jack Morrison, Jack Smith. In the Inspection Office in the Grain Exchange Building on Lombard Avenue, Winnipeg, March 19, 1910.



L. to r. unknown, unknown, F. Symes (Deputy Inspector, F. Gibbs (Inspector in charge at the Lakehead; member of the Board of Grain Commissioners 1912-1913), A. Gibbs (Deputy Inspector). In the Inspection Office at Fort William, 1911.

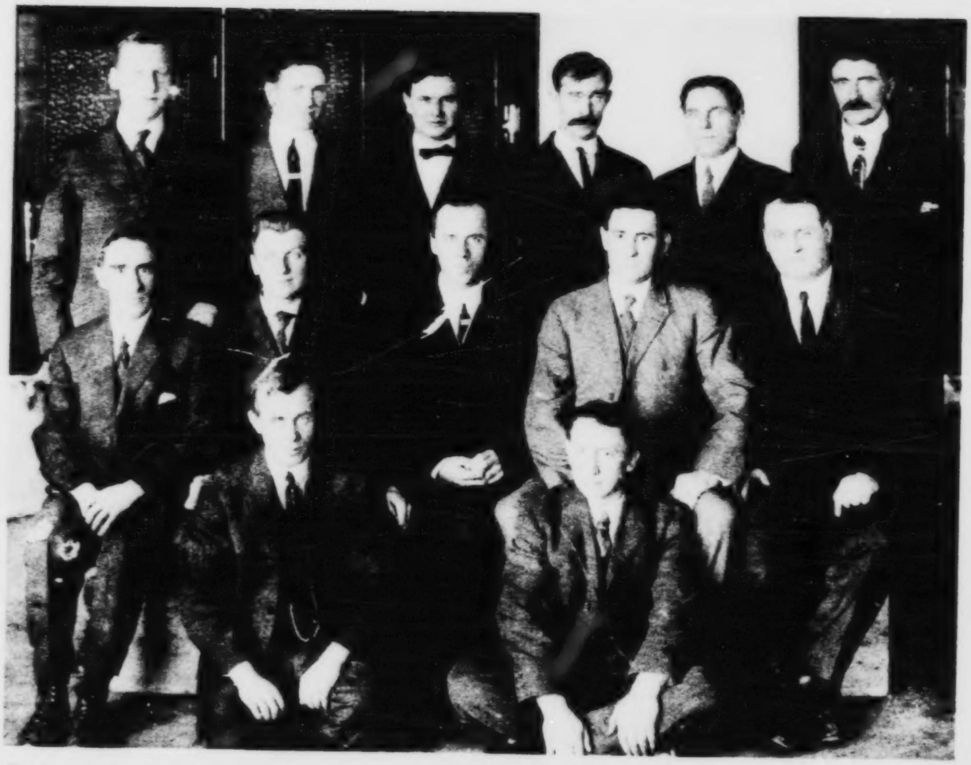
Sampling crew in the C.P.R. Yards, Winnipeg, 1914.

Sampler emptying probe in box car while supervisor watches. C.P.R. Yards, Winnipeg, 1914.

Inspectors grading grain in the Grain Exchange Building, Lombard Street, Winnipeg, 1914.

Inspectors weighing grain for test weight per bushel and setting dockage in the Grain Exchange Building, 1914.

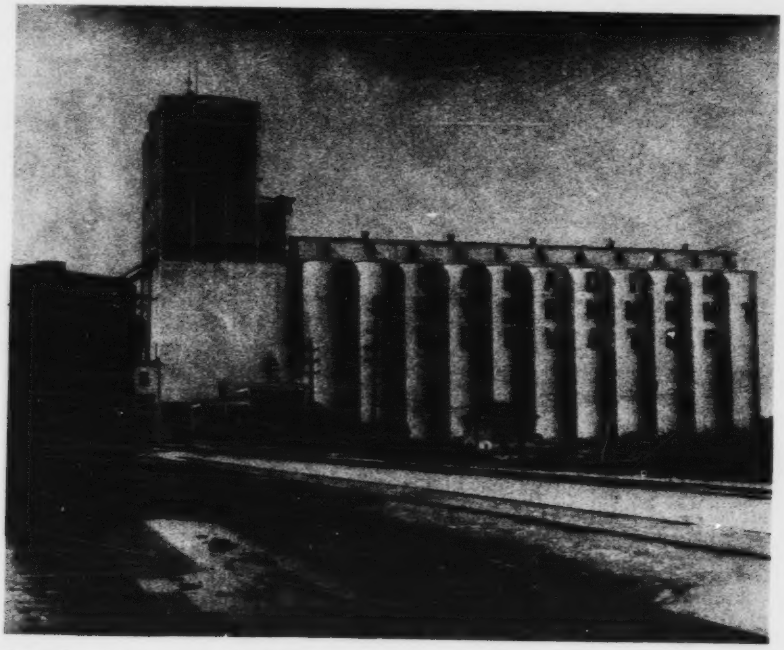
George Serls, Chief Grain Inspector, 1911-1925 in his Winnipeg office, 1914.



Back row, l. to r. F. Ludlam, P. Marples, T. Young, McWhirter, B. Shore, H. Goddard. Middle row, F. Neeve, J. Cuddy, J. McMann, S. Langille, J. Fraser. Front row, D. Miller, J. Gregory. Winnipeg Inspection staff, 1912.

Dr. R. Magill, Chief Commissioner, 1912-1916.

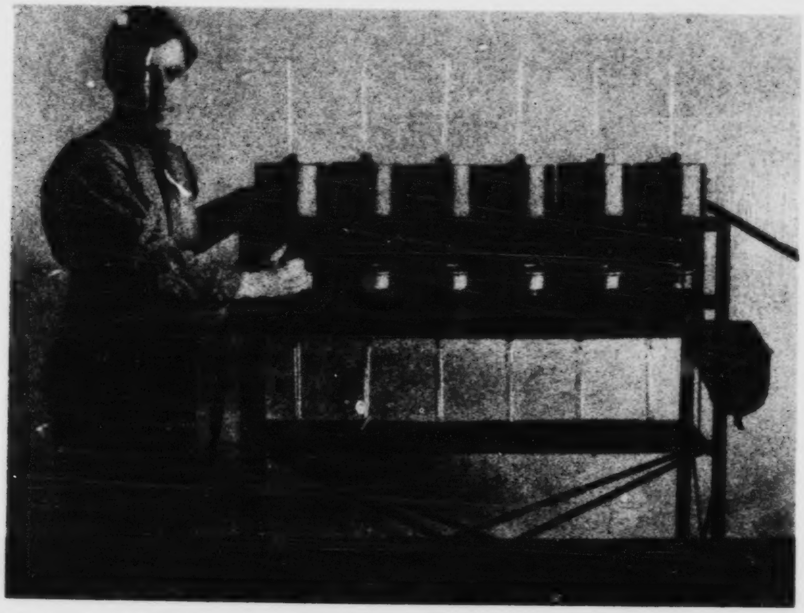
L.H. Boyd, Chief Commissioner, 1916-1929.



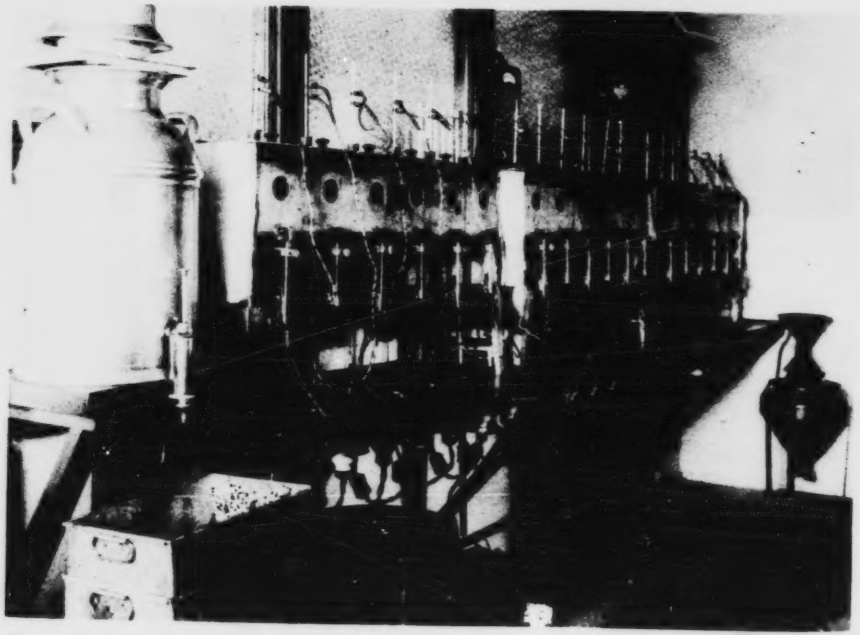
One of the government elevators built by the Board.

Scale floor of a terminal elevator of about 1912 showing the grain hopper at left with control levers and the balance beam of the scale.

Dr. F.J. Birchard, Chief Chemist 1913-1933.



Early model of the Brown Duvall moisture tester. The chambers were heated by alcohol or gas burners, making it difficult to achieve constant temperatures and uniform results.



Brown Duvall apparatus of about 1930. This model used electric heat with much more satisfactory results.

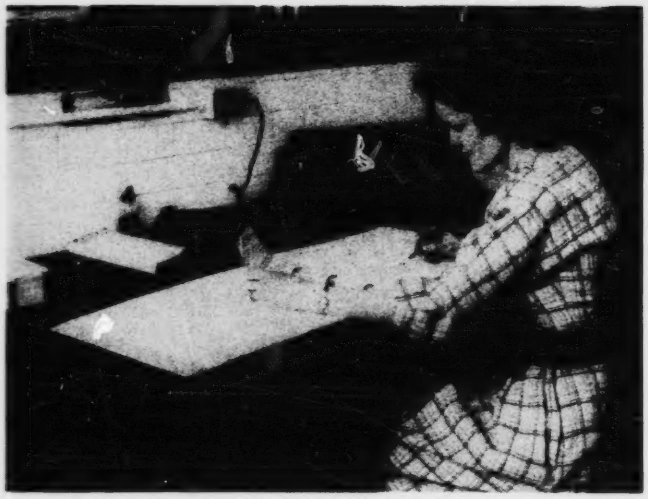
J.G. White, Chief Weighmaster, 1912-1930.

Grain Research Laboratory staff, c. 1940. Seated, l. to r. T.R. Aitken, J.A. Anderson (Chief Chemist), W. Eva. 2nd row, Robertson, Muriel Burns, D. Dalik, Harold Ponting, unknown, Sackston, I. Levi, J.T. Angus, V. Martens, W.O.S. Meredith. 3rd row, Harold Rasmusson, Bob Bettner, J. Waugh, Marnie Easton, A. Capewell, Agnes McGowan, R. Fisher, K. Hlynka, Mabel Simpson.

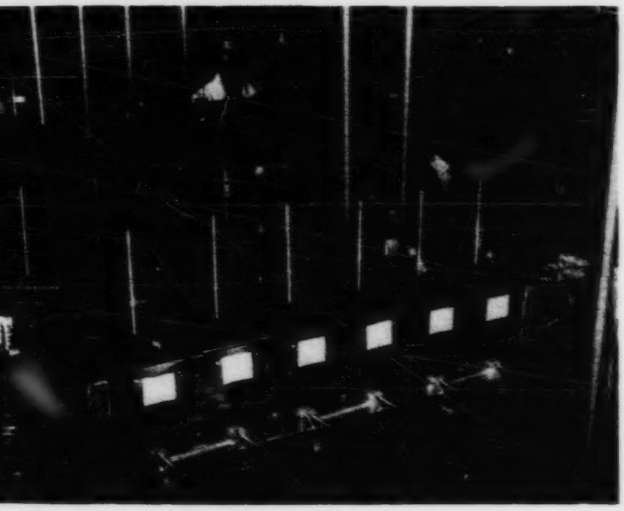
BOARD OF GRAIN COMMISSIONERS FOR CANADA

Board display at the World Grain Exhibition and Conference, Regina, July 24 - August 5, 1933.

he laboratory office and library in the 1950's.



Recording data from a punch card. Electric accounting machines of the type shown in this picture were used in both the laboratory and the statistics departments during the 1950's.



he moisture testing room in the laboratory in the 1950's.

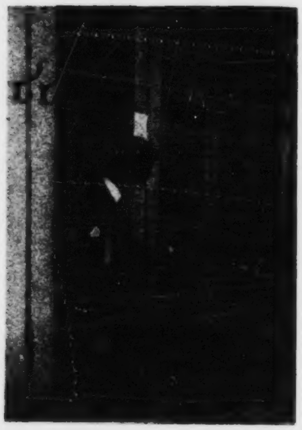
A key punch machine in the laboratory in the early 1950's.

Duke, later Chief Inspector, uses a Tag Hepenstahl ectric moisture meter to determine the moisture ntent of a sample — 1953.

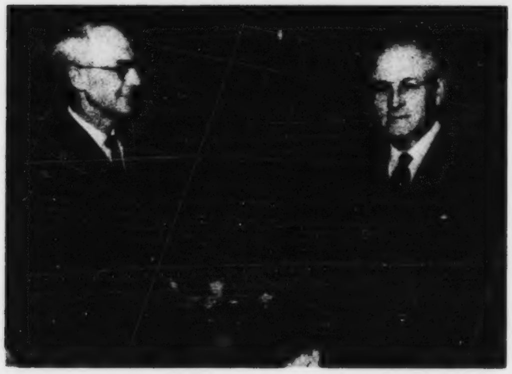
The Kjeldahl Laboratory in 1953.

One of the temporary storage annexes built at the Lakehead during World War II to accommodate the huge carryovers of that period.

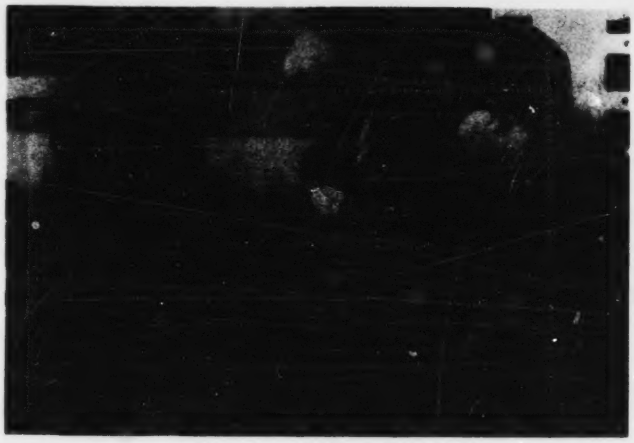
Carlot samples were taken from the rail yards to the inspection offices on Lombard Street in these wooden boxes. This photo is from the 1940's.



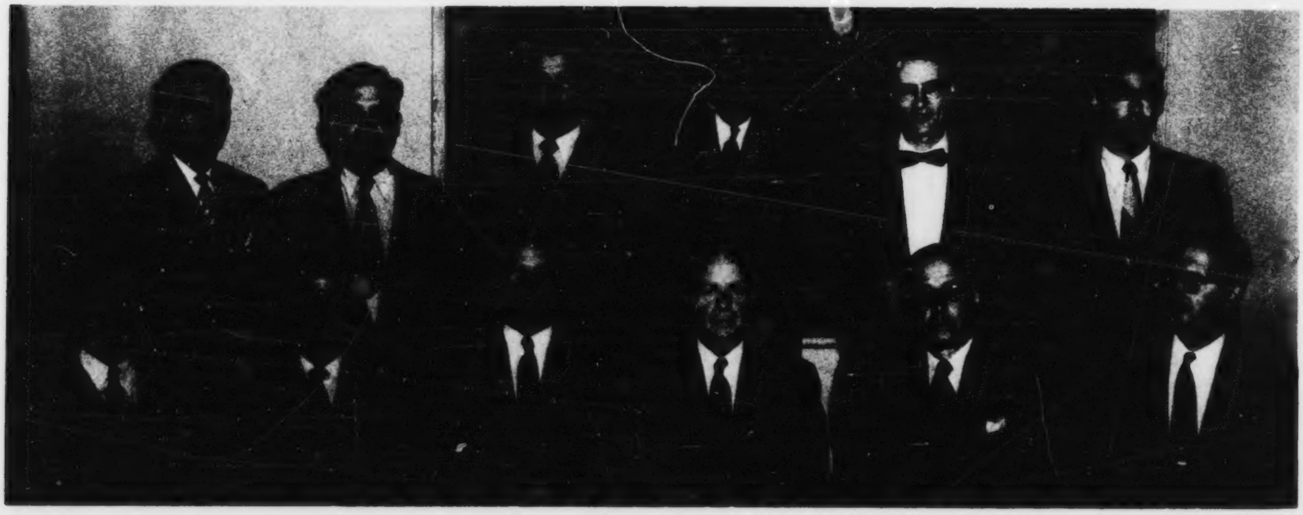
The sample room in the 1940's.



A.F. Dollery, Chief Inspector 1949-1958 and his successor, J. Conacher, Chief from 1958 to 1964.



Grain Research Laboratory scientists Dr. K. Hlynka, Dr. J.A. Anderson and Dr. G.N. Irvine examine an experimental loaf — late 1940's.



Professional staff of the laboratory in the mid 1950's. Front row, l. to r. D. Cunningham, G.N. Irvine, K. Hlynka, J.A. Anderson, T.R. Aitken, W.O.S. Meredith. Back row, V.G. Martens, I. Levi, W. Bushuk, M. Fisher, C.J. Dempster, E.J. Bass.

CHAPTER 6

WEIGHING 1912-1930

Fair weights were an important issue to western farmers during the period leading up to the passage of the Canada Grain Act in 1912. Along with grades and dockage and shortages of cars, weights continued to be an important issue at country points. At the terminal elevator, fair and equitable weighing of grain was one of a number of concerns of the organized farmers, along with mixing and the disposition of screenings. That it continued to be a sensitive issue can be seen from the annual reports of the Chief Weighmaster, J.G. White, who year after year continued to assure his readers that everything had been done to ensure fairness and accuracy in weights. As was the case with Inspection, the Board of Grain Commissioners was interested to show the farmers that they could control wrongdoing with an efficient weighing staff, and that complete government control of the terminal elevators was unnecessary.

The first mention of government supervision of weighing in Canada is found in an 1891 amendment to the General Inspection Act, which states that grain inspectors could be appointed to act as official weighmen "upon petition from any Board of Trade within such division". This was in line with the general philosophy of the old Inspection Act, according to which the local Board of Trade had a good deal of responsibility and control in the inspection system.

In 1900 weighing became more than a commercial and business concern. After that year it was an activity to be regulated, to ensure that the farmers were getting a fair deal at the hands of the grain trade. The Manitoba Grain act specified how weighing would be done in the country elevator and the Warehouse Commissioner was there to ensure that the rules were followed. In the terminal elevator "weighmasters" were physically present to supervise the weighing of grain into and out of the elevator. They were to issue official certificates of weight, collect fees for their services, were bonded and kept accurate records in case of disputes. In 1906 the Millar Royal Commission felt that the supervision in the terminals was not all it should be and as a solution recommended that a separate weighing department be established, independent of the Inspection Department. This suggestion was not put into practise until 1913.

Nothing was added to the legislative provision covering weighing in the Canada Grain Act of 1912. The only major difference was that before 1912, the Act stated that the offices of Chief Inspector and Chief Weighmaster could be combined until the Minister decided differently. In the 1912 Act the Board of Grain Commissioners was given the power to separate the two positions and the next year they did so.

Government supervision of weighing presented a rather different set of problems from inspection and grading. Weights were dependent upon the accuracy of a strictly mechanical device and did not involve, as did grades, personal judgement. If all scales were accurate, there would be very little problem with accurate weights. There was, of course, the question of the honesty and competence of the man doing the weighing. Government supervision involved, therefore, physically checking the scales and, where possible, checking the work of those doing the weighing.

Supervision of weighing in the country was nearly impossible, because of the thousands of individual points at which grain was taken in. Acting for the Department of Inland Revenue the Board inspected all scales periodically and issued licenses. Aside from providing a tribunal to which farmers could take their complaints, the Board of Grain Commissioners could do very little.

At the terminals, the supervision was much more effective. Beginning in 1913 the newly formed Weighing Department inspected all the scales, acting as the agent of the Department of Inland Revenue, and supervised the actual weighing process. Scale inspection had been the responsibility of Inland Revenue before 1912, while the supervision of weighing was done by the Inspection Department. This division of responsibility appeared to Dr. Magill to be "farcical" (Annual Report 1913, p. 37) and he proposed instead that,

> one department should control both factors in weighing, and that either the responsibility for the weighing should be handed over to the Inland Revenue Department, or that some control of the scales should be given to the Board of Grain Commissioners... The ministers of the two departments concerned made an arrangement according to which the inspector of scales in the terminal elevators is an officer of the Board of Grain Commissioners. (ibid. p. 38).

On the same page Magill talked about the importance of having a separate weighing department. There were still very many complaints about weights "from country elevators and shippers, from lake steamers and eastern elevators, and from some terminals against others". He announced his intention, therefore, to "create a weighing department, not secondary to or dependent upon, but coordinate with the inspection department."

On November 20, 1913, J.G. White took up his duties as Chief Weighmaster. White had worked for 20 years for a scale manufacturing firm, so that he was well qualified from the point of view of technical knowledge. He proved to be a thorough and well organized administrator as well, establishing a very effective division. He recruited clerical staff and evolved a documentation system to keep track of the work of his department, as well as a set of rules and regulations for the weighmen.

Inspection of scales in terminal elevators was carried out twice a year. This was true of the elevators at the head of the lakes, as well as those at internal points on the prairies, in the East at the Bay Ports and in Montreal and later on in Vancouver, Prince Rupert and Churchill. One of these inspections was carried out on behalf of the Department of Inland Revenue and a certificate was issued for each scale. Fees collected for this service were remitted to the Inland Revenue inspectors for each district in which inspections were done. The other inspection was free and was done on behalf of the Board of Grain Commissioners. At the lakehead the terminal owners employed a scale mechanic to make any adjustments that White or his men might order. In 1915 there were 157 scales at the head of the lakes and at the interior terminals at Saskatoon and Moose Jaw. By 1930 there were 297 scales at terminals in the western division. The work of inspection thus consumed a good many hours.

White's staff supervised the movement of grain through the terminals, as far as weighing was concerned. When a grain car arrived in the railyards at Fort William a Weighing Department employee checked the car for leaks and when it passed into the track shed of the terminal, a Weighing Department Trackman checked it again. He filled out a form noting the grade and kind of grain, the number of the car, the depth of grain in the car and whether there were any leaks.

The grain was dumped from the car into the receiving pit and elevated to the workhouse of the terminal where it was weighed. The weighman employed by the company weighed the grain in the presence of the government weighman and each man independently noted down the weight shown on the scales. In addition, the scales were equipped with an automatic ticket punching machine which recorded the weight of the load on a ticket. There were, therefore, three separate records of the weight of each draft of grain.

Throughout this 1912 to 1930 period, scales did not change greatly in design. The capacity of their hoppers increased, so that grain could be weighed through more quickly. Most of the scales were manufactured by the Fairbanks or Gurney companies. Grain was dumped into hoppers, which varied in capacity from 12,000 pounds up to 120,000 pounds. At the end of the period scales with hoppers of up to 200,000 pounds capacity had been installed. Some scales were automatic in that they could be set to load and weigh exactly the same amount of grain for each draft.

These hopper scales, which were commonly used for all types of bulk commodities, were compound or multiple lever scales. The weight of the grain in the hopper is transferred through a series of carefully adjusted levers to the balance beam of the scale. If the multiple or ratio of the scale is 1,000 to 1, then 1,000 pounds of grain in the hopper can be counterbalanced by one pound of weight on the balance beam of the scale. The need to constantly monitor this type of scale is self evident. Damage to the weights or mechanism of the beam, dust in the hopper or a problem with the adjustment of the levers could throw off the accuracy of the scale.

When grain was being shipped out of the terminal, the same kind of supervision of the weighing process was the rule. Scale hoppers and shipping bins were checked to make sure they were empty before weighing began; the various spouts and belts were checked to ensure that there were no leaks; and the actual weighing was monitored. When a shipment of grain was loaded, a final certificate of weight was issued. Like the Inspection Certificates, these documents were a guarantee to the buyers of Canadian grain that they were getting what they paid for.

Because their records were used as evidence in case of disputes, the members of the weighing staff were constantly reminded of the importance of accuracy. In the regulations he wrote for his department J.G. White said:

> A weighman who cannot correctly add up a few columns of figures without mistakes, leaves himself open to the charge of not being accurate in other branches of his work. (Annual Report, 1915, p. 23).

Disputes arose when some party in a grain transaction — the farmer or other shipper, an overseas customer or a Canadian miller — complained that there had been an unexplained reduction in weight during shipment. There were many reasons for these kinds of losses. Sometimes it was found that the original weighing at the country elevator was inaccurate because the scales were out of balance. Leaking boxcars accounted for a lot of lost grain. There was also some pilfering of grain while the cars stood in the rail yards. In these early years weighing was not supervised by the Board at Eastern Transfer Elevators, and in the case of some of these elevators there were many complaints about short weights. J.G. White almost always concluded the fault lay with the transfer elevator staff and not his own.

When there was a complaint about losses during the trip from the west to the lakehead, the weighing staff went to their records and made up a condition report. These reports contained the car number, the seal record and the condition of the seal on the door of the car, the date of inspection and the kind and grade of grain, the depth of the load in the car, the weight per bushel and the weight of the carload. After 1913 load lines were stencilled on the inside walls of the cars to provide another rough check of the weight of the grain in the car. These reports entailed a good deal of clerical work and after 1928 a charge of 25 cents a car was instituted.

The other major responsibility of the Weighing Department was the annual weigh up of grain in store in the terminal elevators. The legislative basis for this stock taking was placed in the Manitoba Grain Act in 1908 and the first weigh up was done the next year by the Warehouse Commissioner. Evidence of mixing was uncovered in two of the terminals. The weigh up was thus established as an effective tool for discovering wrongdoing. It was also useful for the grain trade to have an annual audit of grain in their terminals.

In the early years the weigh up was done in the summer before the fall rush began. All the grain in store was weighed and the results compared to the warehouse receipts. Overages and shortages were calculated and a report was published with the Board's Annual Report. In 1912 it had been the practise for the terminals to purchase grain to make good the shortages and to simply sell the overages. The Board changed this practise by regulation, ruling that the elevator must make good shortages from the overages of the next highest grade. Overages over a certain percentage became the property of the Board to dispose of as they saw fit. The incentive to create overages was thus removed.

The weigh up was only compulsory for public terminal elevators so that as this class of elevator gradually decreased in number during the 1920's in favor of the private elevator, the weigh up was less of a control mechanism. Any elevator could request the Department to conduct a weigh up. The charge in 1927 was 50 cents per 1,000 bushels.

The weighing staff grew steadily from 96 men at seven locations in 1915 to 275 at 16 points in 1930. J.G. White retired in 1929 and S.M. Capon, who had been in charge of weighing at Vancouver, took over.

The major change that took place in the work of the Weighing Department during this period was the relocation of the car inspection function to Winnipeg in 1926 "owing to the request from shippers and the trade for increased supervision over cars held for inspection at Winnipeg..." (Annual Report 1927 p. 15). A crew of 26 men worked in the yards in Winnipeg and Transcona in the fall of 1926 recording the seal number and the reseal number before and after the car was opened for inspection, keeping a record of all leaks and damaged cars and hammer testing the cars for weak spots. This was seen as a more efficient way to do car inspection than to leave it until the car arrived at the terminal at the head of the lakes. There was an increase in clerical work and the Weighing Department opened a Winnipeg office for the first time, employing a staff of seven clerks and a typist.

CHAPTER 7

STATISTICS BRANCH 1912-1929

One of the provisions of the Manitoba Grain Act of 1900 was that the Warehouse Commissioner should collect and keep on file for public inspection publications showing the price of grain in the various world markets. This clause was later made part of the Canada Grain Act. The principle that the Commissioner and the Board should provide statistical information to the grain trade was thus established very early. The Warehouse Commissioner and later the Board also received of large amounts of statistical information under the provisions of the Act dealing with licensees. Country elevators were asked to make quarterly and annual reports about the grain in store in their bins. Terminal elevators made similar reports, and the Weighmen and Inspectors reported on the quantities of grain going through their hands in the terminals. The annual weighovers produced detailed information about grain in store in the terminals. The Board of Grain Commissioners was very well placed to be able to give a detailed picture of the entire Canadian grain trade, seen from a vantage point that no other agency possessed.

In his 1913 Annual Report Dr Magill stated that the Warehouse Commissioner had aimed at collecting "very complete statistics" and this had involved "a huge amount of clerical work". (page 22). Although Magill intimated that he was not convinced of the value of much of this information, he soon made provision for continuing and expanding the work. In March of 1914 a statistical branch began to function under H.E. Gordon, who had worked previously in Edmonton as one of the Travelling Inspectors.

Gordon, in his first and only annual report, stated that "By degrees the statistical work is being centralized. Next crop year will see nearly, if not all, statistics given out from this bureau." (1915, p. 25). There followed nearly 250 pages of information in which the various statistics gathered by the Board were laid out in tabular form. Gordon also noted that a good deal of work had been done furnishing information upon request to "newspapers, magazines, banks, railroads, farmers, dealers, boards of trade, etc. etc." This information continues to be an important part of the Division's work to this day.

Sometime in the next two years Gordon left the employ of the Board, perhaps to serve in the armed forces. E.A. Ursell, who had been working as a clerk for the Inspection Division since 1909, took over the statistical work. In 1918 the Board ceased publishing grain statistics as part of its annual report and instead Ursell cooperated with the Dominion Bureau of Statistics in a new publication called Report on the Grain Trade of Canada. This annual report is still published today. In his introduction to the first issue, R.H. Coats, the Dominion Statistician, gives credit to Ursell for providing a "considerable portion of the data". Coats then summarized the information contained in the 70 pages of the report:

> As representing the grain which is subject to movement during any year... the following items are taken: Current production and the quantity in store at the beginning of the crop year in country elevators and in terminal elevators at the head of the lakes. The statistics then illustrate the movements of this grain through

> the several channels until it is finally disposed of, either by shipment from the heads of the lakes, by rail from Fort William and Port Arthur, over the international border into the U.S., or by water from Vancouver. Similarly in the Eastern division, the current crop and the amount on hand in eastern elevators together with the receipts from the West, are traced from stage to stage, either to local consumption or to export to the U.S., the U.K. and other countries. (Report on the Grain Trade of Canada, 1918, p. 3).

Ursell continued to work at the job through the 1920's, although no statistics reports were published with the Board's annual reports until 1930. Coats had referred to Ursell as the Board's statistician, but in the Auditor General's Reports, detailing the expenditures of the Board, he is called Statistical Clerk and his wages were not much more than when he had been a clerk in the Inspection office. In 1930, however, this changed and he received a raise in pay as well as the official designation Statistician. As with other divisions, the Statistics department grew in this period, from 5 staff members in 1915 to 26 in 1930.

CHAPTER 8

REGISTRATION 1912-1930

The practice of issuing warehouse receipts for grain in store in terminal elevators goes back to the construction of the first terminals at Thunder Bay in the 1880's. It was done, after 1900, according to the specifications laid down in the Manitoba Grain Act of that year. There was, however, no mechanism to register and cancel the receipts in an orderly fashion until about 1908 when the Lake Shippers Association began to provide this service. The Association financed it with a fee charged to the elevator companies and with a $5000.00 a year grant from the Department of Trade and Commerce.

This accounting task was taken over by the Board in 1912, on the suggestion of Dr. Magill. Until 1931 it was the responsibility of the Chief Inspector and then it was transferred to a separate Registration Branch. In 1912 there was one registration office, in Winnipeg, but by the early 1920's there were also offices in Fort William, Vancouver and Montreal. In addition to the registrar — in these years the Chief Inspector - there was a staff of assistant grain registrars and grain clerks, some of whom were seasonal employees.

The warehouse receipt was the prime document of title to stocks of grain held in the bins of terminal elevators. There were a number of other documents which described each carlot of grain — a bill of lading, an inspection certificate issued at Winnipeg or some other primary inspection point, a weighing certificate issued at the terminal and a record of the outturn of the car kept by the inspection department. Only the warehouse receipt, however, could be used in the trade to buy and sell grain.

When grain was placed in storage at a terminal elevator, the staff of the elevator made out a receipt which included place, date, shipping point, owner, kind and grade of grain and the weight and the car number. They made a list of these receipts and sent them to the registration office of the Board. The warehouse receipts would be matched against the records of outturns by the registration staff. If the two records of grain agreed the registrar stamped and signed the receipt and sent it back to the elevator company.

When the owner of the grain or his agent presented a bill of lading and proof that the transportation and cleaning costs on the grain had been paid, he would be given the warehouse receipt. It could then be traded on the Grain Exchange and might change hands a number of times before the grain was shipped for export. An exporter would present sufficient receipts to fill the order of an overseas buyer to the elevator company and the grain would be shipped out, once any outstanding charges were paid.

Once the grain was shipped, the elevator employeee had 72 hours to send the receipts to the registration office for cancellation. The registrar's staff would subtract the amount of the receipt from their records and stamp the receipt cancelled. They were then sent back to the elevator company where they were used to clear the company's records and filed away.

CHAPTER 9

THE GRAIN RESEARCH LABORATORY FROM 1913 TO 1930

In his first annual report, for 1912, Robert Magill asked that a grain research laboratory be established. A year later, in December, 1913, Dr. F.J. Birchard, a Canadian who was then employed by the United States Department of Agriculture in Washington, was appointed as Chief Chemist of the proposed laboratory.

Birchard was 38 at the time of his appointment. He had graduated from the University of Toronto in 1901 and obtained his doctorate from Leipzig in 1909. He came to Winnipeg in 1913 to be interviewed and look for a location for the laboratory. He had seen Dr. Black, of the Manitoba Agricultural College in Fort Garry because the College had been mentioned as a possible home for the laboratory. Black asked that Birchard be under his supervision and lecture to students and farmers about the results of his work. Students would work in the laboratory. Birchard replied, with what might be described as a lack of diplomacy, that the only way the proposed laboratory would succeed is if there were "no necessity of cooperation". After the meeting, Dr. Black wrote to Magill, saying that "I had hoped that we might be able to assist you in popularizing the work...Under the direction of this man, I am sorry, results would be impossible" (PAC Magill file, Letter of July 21, 1913).

This incident with Dr. Black was characteristic of Birchard. He was a stubborn individualist who did not cooperate easily. He may well have been correct in judging that a campus location for the laboratory would interfere with its success. He had the support of both Dr. Magill and George Perley, the acting Minister of Trade and Commerce, who wrote that he liked Dr. Birchard and was "satisifed to have him do this work". (Ibid.)

The campus site proposal was rejected and the laboratory was installed in the same building as the Food and Drug Laboratory on the second floor of Postal Station B, at the corner of Main Street and Magnus Avenue. The laboratory commenced operation in June, 1914. The facilities consisted of an office for the chemist, a secretary's office, a balance room, a large general and analytical laboratory, a bake room and a stack room for journals. In the basement was a mill room, housing laboratory milling equipment and a sample room for the collection and preparation of grain samples. (Aitken, p.8).

In his 1913 annual report, Commissioner Magill had laid out the program he wished the laboratory to follow. This blueprint was divided into three main areas — moisture testing, the oil content of admixtures found in flax and the milling and baking quality of "all grades of Canadian wheat". (1914 Annual Report, p. 84.)

Magill said the chemist was in an excellent position in Winnipeg to collect grain samples, as almost the entire crop was shipped through the city on its way to the lakes. He realized that there might be some objection to the program he had outlined in that it concentrated on carrying out a series of mechanical tests, ignoring the "profounder scientific problems about the constitution of the grains, which an expert chemist might be expected to investigate...

> In reply to this one can only say that the data supplied by the series of experiments referred to would be valuable for purposes of administration of the Grain Act, and not only that, but that the experience and results deriving from such experiments are absolutely necessary to the chemist before proceeding to the more profound research work.

Work began in the laboratory in the spring of 1914. The first milling and baking tests on various grades of wheat were begun by Birchard's first assistant, B.R. Jacobs, but were interrupted when Jacobs left. Tests were resumed in November 1914 by A.W. Alcock who was to stay with the laboratory for a number of years and then go on to be the chemist of the Ogilvie Flour Mill in Winnipeg. "Chauncey" Alcock completed a long and distinguished career in the 1960's as a special advisor to the Wheat Board.

In his first annual report, for 1912, Dr. Magill talked a good deal about moisture content because the harvest of that year had been taken off in wet weather. There had been complaints from English customers about damp grain and grain drying equipment had been brought from the U.S., at great expense, to operate at Fort William.

The next year the Board installed grain moisture testers in some inspection offices. Up to that time the inspectors estimated moisture by "eye, nose and touch" and by chewing the grain. The equipment installed was the Brown-Duvell tester, which was to be used as standard equipment for the next 40 years. It was a large apparatus consisting of a number of chambers in which grain samples were heated in oil. The moisture in the grain was vaporized, distilled off, condensed and measured. Operation of the machines was a problem almost immediately because there was no uniformity amongst inspectors as to how the testing was done. In some locations, where there was no electricity, gas or alcohol was used to heat the sample with less precise results.

Magill turned to the newly appointed chemist to take control of the testing, checking the equipment, instructing the staff in its use and comparing results of the units in the field with those obtained under controlled laboratory conditions. He also wanted to know:

> What percentage (moisture) should the grain carry safely in store, what percentage should grain carry in order to be fairly graded as tough, damp or wet — these are questions about the standards of moisture content about which there has been little investigation anywhere, and none in Canada on a sufficient scale. The time has come when such investigation must be attempted. (1914 Report, p. 82).

Birchard's pioneering work during the next few years laid the foundations for standards which still hold today. He began by standardizing the technique used by the inspection staff. Dr. Birchard or his assistant made periodic visits to the inspection offices to ensure that the "tests were being properly carried out at all times". Electrically heated meters slowly replaced the older gas and alcohol heated models, solving the problem of reproducability of results.

In 1918 their studies on moisture took Birchard and Alcock outside Canada — the first of many foreign trips for laboratory employees. The Panama Canal had been opened in 1914 and this provided farmers in the Western Prairies with an alternative to the Thunder Bay route in shipping their grain. It was felt, however, that the steamy climate of the Panama would damage grain shipped from Vancouver via the Canal to Europe. The Minister of Trade and Commerce decided, therefore, to have the "laboratory make as thorough an investigation as possible as to the feasibility of this route."

A.W. Alcock left Vancouver on December 3rd, 1917, aboard the freighter War Viceroy. He was to monitor the condition of a shipment of wheat, to see if he could detect unusual stresses due to the changes in temperature during the trip. Electric thermometers — the same instruments that had been used in a study of grain in terminal elevator bins — were inserted at regular intervals in the hold of the ship and switches were secured on deck. Alcock was to watch for heating in the grain.

Dr. Birchard met the ship when it docked in London in February of 1918, after a trip through submarine infested waters. The two scientists supervised the unloading and although they found some damage due to heating, especially near the engine room bulkhead, it was not any worse than would have been normal for a direct trans Atlantic trip. The laboratory's report on the trip was an important step toward opening up the port of Vancouver and the Panama route to the Canadian grain trade.

Quality measurement began in 1914. For each successive wheat crop, beginning with that of 1913, Dr. Birchard did tests to ascertain the flour yield, ash, protein and wet and dry gluten of the flour and the loaf volume and color, texture and shape of the loaves baked from the flour. For the first two years, 1913 and 1914, he gave figures for the average protein content of the various grades — an early precursor of the red spring wheat protein surveys that would begin in 1927. He also tested samples of flaxseed for oil content. In 1916, for the first time, Birchard did milling and baking tests on the standard samples of the various grades selected by the Grain Standards Board to guide in grading the crop. Such quality testing of the samples would be required by law after 1930.

On the question of quality of the various grades of wheat, Birchard had, by 1919, made good progress. He stated the problem very clearly in 1920:

> The question has often been discussed as to whether the present system of grading is justified and also if the prices which prevail for the different grades bear a direct relation to the actual value of the grain. (1920 Lab Report, p. 21)

He talked about some of the difficulties inherent in this question. In the first place, he said some quality factors, such as color and texture could not really be measured, although methods were later developed to do just that. The second and more basic consideration was that millers did not mill grade by grade to produce flour. They mixed the grades and they also had the potential to produce many different types of flour from wheat of the same grade. Milling and baking tests alone could not, therefore, give an accurate idea of the dollar value of the various grades.

By speculating in this manner about the grading system which was the basis of the grain trade, Birchard made himself the centre of what was later called "violent disputes on the relationship of grades, quality and value between the trade and the chief chemist." (Report of 1963 p. 3). The organized farmers and the Progressive Party members of the House of Commons were embroiled in a number of disputes with the grain trade at this time. Birchard became a minor figure in this conflict, his comment being taken up by some farm representatives as "scientific" proof that the system was unfair to them.

In 1923 the controversy became so heated that the Minister of Trade and Commerce, the Honorable T.A. Low, closed the Laboratory. The staff of four were obliged to resign. Birchard, however, was employed in the so called inside civil service and did not receive his pay from the Board of Grain Commissioners but from the same appropriation which paid the Minister's staff. He could therefore not be dismissed except for very serious offences.

T.R. Aitken, who worked for Birchard at this time, wrote that:

> It was the Minister's hope that this controversy would bring about the chief chemist's resignation and that a successor would be appointed who would be willing to work in closer harmony with the milling industry and the grain trade; the laboratory would then be re-opened with a new head." (Aitken, p. 17)

In the event Birchard did not resign but stayed on, continuing his work in his empty laboratory, helped only by T.R. Aitken who stayed for a while to work for free.

Birchard and his work were not forgotten during the time the laboratory was closed. Western Progressive M.P.'s asked about his status in the House of Commons — questions that must have endeared the chemist even further to Thomas Low. In May of 1924 Mr. Brown, the member for Lisgar, was told that Birchard's case would be taken up by the Minister after the Royal Commission on the Grain Trade had made its report. The next month John Miller, the member for Qu'appelle and a prominent farm movement leader, asked about Birchard and noted that the chemist's research had already resulted in great financial rewards for the farmers. He was referring to the fact that Birchard had established the acceptable level of moisture in grain and thus made it easier for farmers to get better grades for damp grain. Miller stated that:

> I believe that millions of dollars would be saved to the producers if the work that Dr. Birchard is doing was developed still further. (H. of Commons debates June 11, 1924, p. 3079).

Low answered that he had no desire to curtail such important work. He went on to point out that other scientists were involved in research and that there might be more advantageous ways to spend the money available. There were more questions the next month and more expressions of support for Birchard. Support for the chief chemist was offered outside the house as well. In January of 1925, for example, the United Farmers of Alberta passed the following resolution at their annual meeting:

> Resolved, that this convention express the appreciation of the services rendered by Dr. Birchard in his research work in the baking and milling tests of Canadian wheat. Further that the Dominion Government be asked to give Dr. Birchard the fullest opportunity for carrying on such research work and that full publicity be given to his report.

Birchard was called as an expert witness by the Royal Commission in 1924. He testified on a number of issues including the end use qualities of bleached and frosted wheats. When the Commission's report came out, it contained a recommendation for the re-establishment of the laboratory with a "well-trained staff". The work of such a laboratory was held to be essential if Canada was to maintain its "position as a grain growing and grain exporting country." (Report, p.#).

This recommendation resulted in a new section in the 1925 amendment of the Canada Grain Act, describing very specifically the role of the laboratory. Part of this clause, which was section 79, states:

> Such research department shall be under supervision, direction and control of the Board of Grain Commissioners.

It was no doubt hoped that this would give some support to the people who had to supervise the individualistic and determined Dr. Birchard. On a more positive note, section 79 gave legislative sanction to the work of the laboratory for the first time and acknowledged the growing significance of cereal chemistry to the work of the Board.

The Minister turned to the newly created National Research Council for guidance as to what exactly the Chief Chemist and his staff would do. The Council responded by establishing a special Committee which grew into the Associate Committee on Grain Research. This Committee, which coordinated research at a number of institutions, was responsible for many important advances over the years. After 1970 the committee was transferred to the Department of Agriculture under which it now functions.

At their first meeting in Edmonton in January, 1926, the committee, consisting of representatives from the three Prairie Universities, discussed the place of the laboratory in grain research. Birchard, who was still not officially reinstated, was not present at this meeting. The Committee felt that the laboratory should be in close proximity to the Inspection Department, for greater efficiency. They also undertook to give the work of the laboratory "general supervision" and to keep in close touch with the Board.

They did not meet again until January of 1927, in Winnipeg. Dr. Birchard was present at this meeting and he set forth his research program for the approval of the Committee. The main concern of the Committee and the trade in general at the time was moisture, since there had been two wet harvests and there were a lot of grading problems relating to wet and dried grain to consider. The Committee's work in this area will be discussed later.

The Laboratory was moved from the Magnus Avenue location to new quarters in the Grain Exchange Building in May of 1927. It was thus in the same building as the rest of the Board's Winnipeg offices. The Laboratory occupied rooms on the 8th floor and there were a mill room and sample room on the ground floor. It was to remain in these quarters, expanded several times, until 1973, when it moved to the new building at 303 Main Street.

Beginning with the crop taken off in the fall of 1927, the laboratory did a large scale protein survey of the red spring wheat crop. A map showing the areas where the wheat of the different percentages of protein was grown was prepared and published. Samples of all the grains and oilseeds were taken as the crop moved to market and various quality tests were performed. The moisture testing done by the inspection department was monitored by the laboratory and various special studies were done for that department. Quality tests of new varieties were being done, although these tests were not part of a coordinated national program as they would become in the 1930's.

The late 1920's the laboratory, this time in conjunction with the new Associate Committee on Grain Research, participated in program of research on grain drying. Milling and baking tests of grain dried artificially were done at the three prairie universities and in the Grain Research Laboratory. At the University of Alberta, an experimental grain dryer was constructed. A committee of grain trade representatives under the chairmanship of H. Sellars was formed to help with the work by providing samples. By 1930 the program had resulted in some tentative guidelines for grain drying, laying down maximum temperatures and lengths of time.

Birchard promoted the results of his quality testing as an important selling tool. After the laboratory reopened in 1927, the results of the various quality surveys were sent to Canadian and foreign millers and publications in the form of letters and bulletins. Birchard spoke to various meetings, like the Pool conventions, and took along test loaves as illustrations. In the report of his European trip in 1932 he recommended an enlarged publishing program. He said publications should be sent to customers every year detailing the quality characteristics of the various grades. Tests should not be done according to Canadian methods only, but "according to methods actually used in different countries." (#). He also said the publications should be produced in different languages. Over the years all these things have been accomplished. Laboratory publications are widely distributed throughout the world.

CHAPTER 10

CANADIAN GOVERNMENT ELEVATORS 1912-1930

The government had responded to the demands for nationalization of the terminal elevators at the head of the lakes with a compromise. They had attempted, in the 1912 Canada Grain Act, to make it impossible for a company to operate both country and terminal elevators. This was done on the theory that if a terminal was handling only other people's grain there would be no temptation to mix and promote grades. This provision brought down the wrath of the grain trade upon the framers of the new act. It was felt that no company could operate a terminal profitably unless it had a line of country or feeder elevators to ensure a sufficient volume of grain. The new Board of Grain Commissioners never enforced the relevant clauses of the 1912 Act.

A second compromise solution, that of the Board operating some terminals, was decided upon in an attempt to appease the grain trade and reassure the organized farmers. Dr. Magill explained the new policy by saying he was against the idea of nationalizing all the terminals because he felt their management would consume all the time of the new Board and still not solve a number of important problems.

> Apart altogether from the question whether such a policy is desirable, the Board was confronted with the difficulties involved in carrying out such a policy concurrently with other things that appeared to be at least equally desirable. The expropriation and all that it involved, the dislocation of the system of handling grain built up under the law, the preparation for the operation of the lake terminals by the Board — these were matters so serious in themselves that if attempted they would have claimed the whole time and energy of the Board, and would have led to the postponement of other, more important matters. (1913 Report, p. 35).

Instead, Magill suggested the Board construct its own terminal elevators which would operate beside the privately owned terminals. This plan had the positive benefit of helping to alleviate the shortage of terminal space without disruption of the grain handling system. It would also, Magill argued, give the Board some valuable insights into the terminal business which would help them in their regulatory duties.

In addition to the terminal at Port Arthur, the Board was to construct five more elevators on the prairies over thenext few years. These interior terminals had been suggested in the past and were the subject of some controversy. The Royal Commission of 1906 argued against the construction of interior terminals in its final report, on the grounds that it would cost extra money to move the grain into and out of them, that it would cost a great deal to build them and that the farmers would not make use of them. On page 7 of the report it was argued that:

> Any shipper of grain who would get a car through the order book in the usual course, would naturally want to ship his grain to Fort William, so that he might sell it at track price of the day, which in ordinary years, would be from three to five cents a bushel more than it would be worth in the interior storage elevator.

The arguments in favor of the plan were made over and over in Board publications. Interior terminals would bring official inspection and weighing and the issue of warehouse receipts closer to the producing area so that the producer could have final and official documents covering his grain much sooner after shipping than if the car went all the way to the lakehead. The interior terminals would be a sort of insurance policy against years in which there was a shortage of space in the elevator system, or a shortage of cars to move the crop to export position. Cleaning and drying could be done inland and the owner of the grain would no longer be paying to ship moisture and dockage to Fort William — it would be removed while the grain was still on the prairies. The Board was also looking ahead, in 1913, to the time when alternate export points would be opened, at Vancouver, Churchill and Prince Rupert. The prairie terminals would give producers more flexibility in that it would be easier to ship north, west or even south from them than from Fort William and Port Arthur. The terminals would, it was argued, encourage the prairie milling industry by providing the millers with cheap storage, close at hand. Lastly, if grain were cleaned at prairie points, the screenings would be available for livestock producers on the prairies.

A final argument, designed no doubt to appeal to farmers who had demanded the expropriation of terminals, was that the government elevators gave producers an "opportunity of consigning their grain to, and having it completely handled at, an elevator owned and operated by the Government." (Memo of n.d. PAC Wpg. file 39550, 'The Canadian Government Elevators and their Service to the Agriculturalist of Western Canada').

The Board, therefore, went ahead with the massive building program between 1913 and 1916, constructing five terminals with a total capacity of over 20,000,000 bushels. The Port Arthur terminal opened in October 1913, those in Moose Jaw and Saskatoon came on stream a year later, the Calgary terminal began receiving grain in September, 1915, and the elevator in Vancouver opened in 1916. The Vancouver elevator was at first classified as a transfer elevator, receiving grain from the terminal points inland.

By 1931, four more elevators had been erected, at Edmonton in 1924, at Halifax in 1925, at Prince Rupert in 1926 and at Lethbridge in 1931. The Vancouver and Halifax elevators were turned over to the Harbor Commissioners in those two ports in 1923 and 1933 respectively and the Prince Rupert terminal was leased to the Alberta Wheat Pool from the time it was opened until the mid 1930's.

In 1913 and 1914 the administration of the elevators was done by the Board members themselves and it is likely that J.P. Jones took a lot of the responsibility, since he had been an elevator superintendent prior to this appointment to the Board. In April, 1915, Magill wrote a memo to Sir George Foster, asking amongst other things, that a general manager be hired. He said that he and the other Commissioners had spent more time than they could really afford in the past years dealing with elevator administration, to the detriment of their other work. He said, too, that someone was needed to aggressively sell the services of the elevators, to attract business from competitors. A general manager would also distance the government elevators from the Board and allay suspicions that regulations would not be as strictly enforced in the operations of the publicily owned terminals.

This problem of the Board sitting in judgement upon itself was to be mentioned repeatedly as a disadvantage of their operating the elevator system. Magill went to some trouble to explain to Foster that the government elevators were indeed strictly regulated by the inspection and weighing departments and had to follow the same rules as everyone else. Reports on the operations of the government elevators were not, until 1930, printed with the Annual reports of the Board until 1930.

C.E. Austin was appointed general Manager of the elevators in 1915 and a year later he wrote a lengthy, 'not for publication', annual report to the Board. He had had travellers out trying to convince farmers to ship to the government terminals, and he had done some selling himself, which necessitated his asking for an allowance for entertainment. He apologized for his massive telegraph bill, but explained that there was no other way to keep his finger on what was happening in all the widely separated plants. Like everyone else he had had difficulty in finding men to work for him in Port Arthur, because of the war, but he said he had had some luck employing 'foreigners', although he did not hire anyone from an enemy country. (Annual Report, 1915-16, PAC file 39550).

It is an interesting sidelight that C.D. Howe, who was later Minister of Trade and Commerce was Chief Engineer for the Government Elevators, supervising their construction and then their maintenance. Howe had been a teaching colleague of Magill at Dalhousie University and had been invited to come west by his fellow professor.

In spite of the efforts of Austin and others to sell the use of the Government Elevators, they were plagued by underutilization. A 1927 study of the Port Arthur facility, done by the Board's auditors Millar and Macdonald, gave a picture of an enterprise which produced an overall surplus, but suffered from a deficit in the elevation part of its business. By elevation was meant the taking in and loading out of grain, its cleaning and drying — the function that could show a profit only with high throughput. The study calculated that the government terminal was not handling its share of the total volume of graan passing through the port. It received the overflow that the other terminals were not able to accommodate.

The inland terminals had the same problem, complicated by the fact that they were located far from export position. A memo written in the 1920's summarized the difficulty in this way:

> The number of individual farmers who have patronized these elevators in the past has not been as large as might have been expected in view of the demand for their construction, the result being that in some seasons the volume of grain handled was not large enough to provide sufficient revenue to meet operating expenses at some of the plants. ("The Canadian Government Elevators and their Service to the Agriculturalists of Western Canada", n.d. p. 5, PAC file 39550).

In spite of these problems, all the elevators except those at Moose Jaw and Saskatoon produced surpluses every year and the system as a whole did not experience a deficit until 1931. The inland terminals served an important function in these years, as well as later, as storage facilities for seed grain distributing to producers.

The staff employed by the Government Elevators was widely dispersed. The records show, however, that there was some movement of staff between locations to fill in during heavy periods. As has been mentioned, the general manager used the telegraph to keep informed. Austin received daily reports, by night letter, from his superintendents. The staff at Moose Jaw was probably a little larger than at other points because the elevator there got its power from a diesel generating station which had its own staff. As with other departments of the board, staff were taken on during the busy season and laid off once the crop had been largely moved.

CHAPTER 11

BACKGROUND 1930-1970

The years between the two major revisions of the Canada Grain Act were a time of profound change for agriculture on the prairies in general and the grain trade in particular. After a period of stagnation in the 1930's, the production of grains and oilseeds resumed its climb. The generally increasing volume of grain was being produced by a decreasing population, operating larger farms that were more mechanized. Government involvement in agriculture increased tremendously in the 1930's and during the war and then remained at a high level for the rest of the period. The grain gathering system had also undergone some profound changes by 1970.

1930 is recognized as the end of the homestead era in the west. In that year the Federal Department of the Interior turned over administration of Crown lands to the provinces. An era of almost constant expansion in population, agricultural production and farmland was coming to an end. It might have been a time to sit back and view with satisfaction the things that had been accomplished. Instead, the stock market crash, the steady decline in grain prices and several years of poor growing conditions would threaten to destroy the society that had grown up on the prairie.

But good weather returned, as it always does on the prairies and adjustments were made so that, in many areas, growth resumed. The total area of land under cultivation continued to increase from 109 million acres in 1930 to 133 million acres in 1971. Total production of grains and oilseeds also continued the increase that has characterized the twentieth century. There were long periods of decline — like the years between 1928 and 1937 — but the general tendency was for new records in production to be set every 10 years or so. From a record of 950 million bushels of grains and oilseeds in 1928 production declined and rose to new records in 1942, 1952, 1966 and 1971, one and one half billion bushels being produced in the latter year.

The number of farms and the population living on them did not change greatly during the 1930's but then began a long and steep decline. With the exception of those who abandoned their farms or moved to other areas of the prairies, most farm families stayed on the land during the depression, there being few other options. When the war began, however, the dam burst and between 1939 and 1945, 150,000 people left the prairies to serve in the armed forces or work in industry. The decline continued and by 1971 there were only 600,000 people living on farms in the west - almost exactly half the number recorded in 1931.

The number of farms also fell, from a high of almost 300,000 in 1941 to about 175,000 in 1971. The average size of farms grew correspondingly from 349 acres to 726 acres in the 40 year period. Mechanization allowed the smaller farm population to successfully work their farms and increase production. A process that had begun haltingly in the 1920's shifted into high gear during the war. During the 1940's the number of tractors doubled, the number of trucks tripled and the number of combines rose by four times. This rate of growth was maintained in the 1950's and then slowed as individual machinery units began to be capable of much greater amounts of work.

Fertilizer and pesticide use began a period of major growth in the 1960's and has made its contribution to production increases.

While it is dangerous to generalize about people as individualistic as prairie farmers, it is safe to say that attitudes changed during this 40 year period. By 1971 most farmers were operating large and complex businesses as opposed to small family grain farms. Collective, cooperative action, such as had built the Grain Growers movement and the Pools, was not as attractive a solution for many of this new breed. Many producers began to form commodity based organizations which challenged the traditional hegemony of the Pools and the older agricultural groups. These changes have had their effect on the formation of policy and the direction the grain industry has taken.

There were some important changes, too, in the types of crops grown on the prairies. Throughout the years from 1930 to 1970, wheat maintained its position as the most important product, normally constituting from 85 to 95% of the grain exports. There were, however, periods when wheat was challenged by other crops. During the war years, when the allies were desperately short of feed grains, oats and barley production was encouraged. In the 1950's and 1970's feed grains and oilseeds, especially canola, periodically made up large percentages of total exports. Wheat, however, has rarely slipped below a 60% share of total exports.

There was an interesting transformation in the markets for Canadian grains. At the beginning of the 1930's the United Kingdom and western European countries such as Belgium, the Netherlands, Germany and France took the great bulk of our exports. As the depression worsened and war loomed on the horizon, many traditional markets were closed to Canada. Tariff barriers were erected to encourage the strong domestic agriculture that would be needed during the next total war. Even the U.K. began to restrict grain imports after 1932. New markets in the United States made up for some of these losses, and, of course, production was down in the west.

When the Second World War broke out many markets were completely cut off. Britain and the United States purchased record amounts of grain, however. In 1940/41 Britain bought 120 million bushels — the largest sale of wheat up to that time. In the late 1940's Britain retained her position as the main market, buying from 50% to 75% of our total exports under the Wheat Agreement. From that time Britain's importance declined steadily. New customers such as India and Japan appeared on the scene in the 1950's. In the 1960's China, Russia and other planned economies suddenly began buying the lion's share of our exports. By the 1970's Britain was accounting for only about 20% of our foreign sales.

These new markets, and especially Russia and China, revolutionized the Canadian grain industry by greatly increasing the amount of grain exported. After 1960 there was a dramatic climb in the volume of grain going overseas. This profoundly changed the grain handling sector of the industry. Between 1930 and 1960, exports remained flat for long periods. In years of increased production there were, therefore, vast carryovers. This was true during the war and again in the 1950's.

The grain handling system was more of a storage system than a throughput system in these years. At times of peak carryovers the storage capacity of the system was increased by the construction of elevator annexes and the use of other buildings, such as curling rinks, for grain storage. The industry made profits from storing, not handling and selling grain.

After 1960 total capacity began to decline — a decline which would accelerate during the

1960's and 1970's. Between 1960 and 1975 the total number of licensed elevators fell by 20%. The emphasis now was on moving the grain through the system for export.

Government intervention in the grain trade grew to be a much more important factor in the period 1930 to 1970. The crisis of the depression and the war led to a much closer partnership between agriculture and the state. Beginning with the Wheat Bonus of 1931 and continuing through the establishment of the PFRA and the Wheat Board in 1935, government moved to try and reverse the crisis in western agriculture or at least mitigate some of its effects.

Various pieces of legislation, were passed to provide farmers with some income in the inevitable bad years that are a part of prairie farming. The Prairie Farm Assistance Act of 1939 was such an Act. The Canadian Farm Loan Act and the Farm Improvements Loan Act allowed the government to extend credit to farm operators.

In 1941 the Wheat Board became the sole marketer of wheat in the west and at the end of the 1940's the Wheat Board was given similar responsibility for oats and barley for human consumption. Several acts passed during the 1940's laid the foundations for marketing boards for other farm products.

After 1941, the major role assumed by the Canadian Wheat Board changed the role of the Board of Grain Commissioners in a number of areas. The setting of tariffs was no longer solely a Grain Commission function. The Wheat Board, as the major buyer of wheat and later coarse grains, negotiated special handling agreements with the elevator companies. The Board of Grain Commissioners, as a regulator of charges, was to a certain extent bypassed. As a major shipper of grain, the Wheat Board also had tremendous impact on the rates charged for moving grain on the Great Lakes — another area where the Board of Grain Commissioners had regulatory responsibilities. The Car Order Book section of the Act came into conflict for many years with the Wheat Board's need to move certain grades and types of grain to export points at specific times to honor sales contracts. Those sections of the Act were often suspended between 1940 and 1970 when they were removed from the Act altogether. The changing situation in the grain industry thus made parts of the Grain Act obsolete long before the amendment of 1970.

With all the changes that took place over the 40 years, the basic problems in regulating the grain industry remained unchanged. Insuring fair weights, accurate grading and an orderly marketplace were as important in 1970 as they had been in 1930.

CHAPTER 12

BOARD 1930-1970

The new Board, consisting of Edward Bannerman Ramsay, Duncan Alexander MacGibbon and Charles Magill Hamilton, was appointed in August, 1929. They were appointed at a time when the amendment of the Grain Act had been only half completed. In June 1929 a large number of changes to the Act had been passed by the House and Senate, but the Minister of Trade and Commerce, James Malcolm, instructed the new Commissioners when they were appointed to completely revise and reorganize the Act.

It was clearly time for such a revision. The old Act had been in force since 1912 and had undergone extensive amendments following the Turgeon Royal Commission in 1925. Then in 1929 more amendments were made, based on the recommendations of the Brown Royal Commission and of the three prairie pools. E.B. Ramsay later said that the 1930 Act was passed in "great haste amid great controversy." We have already seen that the Board came under fire in the late 1920's for seeming remote and not offering sufficient protection for the rights of producers. We have also seen how the grading system received a good deal of criticism. It was no doubt hoped that the new Act and the new Board could solve some of these problems.

The 1929 amendments were carried over into the new Act and a few more changes were added in 1930. The amendments of 1929 touched all sections of the Act. The ability of the Board to maintain contact with the producers was strengthened by the provision for four assistant Commissioners, one to be stationed at the Lakehead and one in each of the Western Provinces. These officials were to be appointed by the Minister and their salaries were to be set not by the Civil Service Commission but by the Governor in Council. They would have the same powers as members of the Board, within their respective provinces. This change was intended to satisfy those who felt the Board had not been visible enough on the prairies.

After years of discussion, the Board was allowed to decide where its headquarters should be. The decision to move to Winnipeg was taken immediately. Boyd had strongly favored Winnipeg and complained about the amount of extra travelling that was required when they were based in Fort William. By train, the journey took a full day and it had to be made often, since much of the Board's work was done in the city.

Most important to organized farmers was the new prohibition of mixing included in the Act in 1929. Mixing of the top four statutory grades of red spring wheat was now to be prohibited in all terminal elevators, including those holding a private license. This was recommended by the Brown Royal Commission.

Another recommendation of the Commission and one supported by the wheat pools, was for a special export standard. The amendment which resulted stated that grain loaded out of a terminal for export must be equal to a composite standard consisting of 75% of the average quality of the grade as established by primary inspection and 25% of the minimum quality of the grade. Previously, export grain had only to be equal in quality to the grade that went into the terminal — the domestic grade. This provision was designed to raise the standard of export shipments. It was felt that this, in combination with the prohibition of mixing, would act to safeguard the quality of our exports.

The 1929 amemdments made a great many changes to the Car Order Book sections of the Act. These were mainly changes in detail designed to benefit farmers. For example, two farmers could now share a car and ship their grain together without building a bulkhead in the car. There were some changes that the Pools had requested. A Pool member delivering grain to or on behalf of his Pool organization was to be considered the owner of the grain for the purposes of securing a car.

An important symbolic change to the Act was the composition of the Grain Standards Committee. In the 1912 Act the Board was given the authority to select "such number of fit and skilfull persons as it deems necessary" for the Grain Standards Board, which at that point had the job of selecting the standard samples for the commercial grades of grain. In 1930 the Act specified who should be on the committee and producer representatives predominated. In addition to representatives of the Board such as the Commissioner, the Chief Inspector and the Chief Chemist, the Committee was to consist of one representative of the Milling industry and 13 representatives of producers in the four western provinces. The new committee was also charged with selecting the standard samples for not only the commercial grades, but the statutory grades as well. This change can be seen as a concession to producers; a way to give them more control of the grain system. As will be seen elsewhere producers actually made use of their majority during the controversy over establishing separate grades for Garnet wheat.

When these changes were in place, the Act was finally in a form that largely satisfied the organized farmers of the West. The Grain Grower's Guide expressed this satisfaction when it reported that the Act had been amended and that all the Pool's major recommendations were adopted.

If the changes of 1929 were to satisfy the Pools and the organized farmers in general, the amendments of 1930 were based on suggestions made by the Commissioners themselves and were designed to better enable them to administer the Act. The powers of the Board to conduct inquiries and impose settlements in disputes were strengthened and clarified. The changes were suggested by the new Board under E.B. Ramsay, but in essence they were based on suggestions made by Leslie Boyd and Matthew Snow. The orders issued by the Board would now be registered in the superior court of the province and would have the same weight as the judgements of that court. There was no longer any need for people making complaints to swear an oath or submit a formal affidavit. This gave the public easier access to the services of the Board. In addition, the Board could initiate inquiries on its own, without a complaint having been filed.

Perhaps the most important change was in the issuing of regulations. Previously the Act contained a single clause saying the Commissioners could make regulations, with the approval of the Governor in Council. The 1930 Act removed the Governor in Council phrase and listed two pages of specified areas the Board could control through the regulations. This change gave the Board greater flexibility and authority in regulating the industry.

In March of 1930, an Ottawa lawyer, Colonel O.M. Biggar, was retained by the Board to help with the drafting of the new Act. Biggar's main contribution was to arrange the sections more logically. Those of the old Act were put together, said Biggar: "...almost as if they had been drawn by chance out of a hat." He also introduced a new way of establishing the Board's constitutional right to regulate an industry that is a provincial concern. Instead of declaring elevators a "public good" as was done in 1925, railroads and ships which could be regulated federally were forbidden to load grain from an unlicensed elevator.

As much as the changes to the Act, the composition of the new Board of Grain Commissioners can be seen as a victory for the Pools and the organized grain growers. E.B. Ramsay was General Manager of the Pool Central Selling Agency at the time of his appointment to the position of Chief Commissioner. A native of Glascow, he began his working life in the banking world. He worked for the National Bank of Scotland and the Chartered Bank of India, Australia and China, serving in the Siam office of that organization between 1907 and 1910. Like thousands of others he then immigrated to Saskatchewan and tried homesteading at Fillmore. He was soon managing the local Union Bank and he did so until he was appointed to the Saskatchewan Wheat Pool Board in 1924. Shortly after that he went to work for the Central Selling Agency in Winnipeg. He was thus typical of a group of men who started their careers in the grain industry not in the private trade but working for the Pools. A number of these men later worked for the Board of Grain Commissioners or the Wheat Board. It is a measure of the new power and influence of the Pools that one of their employees was chosen to head the Grain Commission.

C.M. Hamilton was a farmer from the Weyburn area and had been a member of the Saskatchewan legislature and Minister of Agriculture in the Liberal government of the 1920's. He had also been president of the Grain Growers Association in his district, so he had a strong connection with the organized farm movement.

Dr. D.A. MacGibbon was Professor of Political Economy at the University of Alberta at the time of his appointment to the Board. A native of Quebec, he had studied at McMaster University and at Brandon College before going overseas during the First War to serve with the First Canadian Tank Battalion. He taught in Edmonton during the 1920's and served on various commissions, including the Turgeon Royal Grain Inquiry Commission of 1923-24. He was a Liberal and it is said he was on the fringes of the so called "Sanhedran" of Winnipeg advisors to the government which centered around such figures as J.W. Dafoe. But he was also a well qualified expert in the field who had published a history of the Canadian grain trade the year before his appointment.

To say that the Pools and the organized farmers were well represented on the Board and largely satisfied with the Act is not to suggest that the new situation was biased unfairly in their favor. Ramsay had been involved in the grain trade for some years and was therefore able to see both sides of issues. Indeed the success or failure of the Board's work depended very much on its having an unbiased image.

In his first annual report, for the year 1930, Ramsay claimed that the new Act was working well.

> "We are of the opinion that the principle embodied in this Act meets generally with the approval of Western public opinion representing as it does a fair compromise between two schools of thought and the terms of the legislation have proved to be practical and have in no way interfered with the conduct of the grain business in its major aspects." (1930 p.5).

The general routine of the Board, now headquartered at Winnipeg, was shaped by the provisions of the Act. Complaints about grain handling in the country and enroute to the terminals and about the quality and weight of grain being traded in Canada or exported all received attention from the Board or from the Secretary and his staff. The majority of cases were dismissed because no grounds were found for the complaint. Many were settled by arbitration or by an order of the Board. A very few were placed in the hands of the Crown for investigation and prosecution in the courts. In most years there were as few as two or three prosecutions and at times none at all.

In case of a licensee defaulting, the responsibility of the Board was to arrange for the payment of any claims out of the bond. In the area of grain transportation and handling the Board received applications from producers for the construction of loading platforms. The assistant commissioners investigated to see whether a platform was warranted at the point in question. The Board received applications for the supply of cars out of turn, that is cars to move grain in special emergency situations. In years when there was a lot of tough and damp grain to be moved the number of these applications rose.

E.B. Ramsay and the other commissioners attempted to be more visible in the west. E.B. Ramsay attended various Pool Annual meetings and held public meetings of his own at country points. This was in addition to the regular sessions of the Board which were convened, for the most part, in Winnipeg, but could be held in other cities if a problem arose.

The work of the Assistant Commissioners served to make the Board more accessible, and serves that purpose to this day. From the beginning their work has fallen into two general categories - dealing with complaints and inspecting country elevators. In his first annual report E.B. Ramsay described how the Assistant Commissioners investigated complaints from farmers or others, took down evidence and then submitted a report, along with their recommendation to the Board. The case was then reviewed and a final decision taken. Frequently disputes were and are settled on the spot, by means of diplomacy and common sense. If a formal investigation was required, the Assistant Commissioner gathered evidence under oath and after a review of all the facts, a Board order was issued disposing of the matter. In a few cases, the matter was taken as far as prosecution in the courts.

The inspection of elevators, Ramsay explained in the 1931 annual report, was intended to be "educational rather than minatory." It was hoped that by answering the questions of the elevator operators, misunderstandings about the Act and Regulations could be cleared up. The Assistant Commissioners examined the scales and other equipment and the records the operator was obliged to keep. The Car Order Book was examined.

Overages in country elevators had been a problem from the beginning of the elevator business in the west. Some operators, fearful of having shortages at the end of the year, routinely took a small amount of grain from each farmer delivering into the elevator. This could be done in a number of ways. For example, when weighing in a wagonload, the operator might not wait for the scale to balance perfectly. The weight he assigned to the load would be less than the actual amount in the wagon. The difference would go toward a surplus or gross overage. A net overage, or a surplus on grain after the dockage was removed, could be produced by taking more dockage than was warranted.

The problem was brought before the Turgeon Royal Commission in 1923. The remedy offered by the Board of Grain Commissioners at that time was to allow the elevator agents to take a small percentage of the grain handled, as a compensation for shrinkage - that is grain lost in handling through spillage and the like. Before 1923, shrinkage had only been allowed on special bin grain; after it was allowed on all grains, in a percentage set by the Board.

In 1931 overages again became an issue. In that year, a manitoba royal commission under E.K. Williams looked into the operations of the Manitoba Pool Elevator Company and one of the things examined was the large overages in country elevator operations. All companies had operators who took not only the shrinkage allowance but an extra amount of grain, for insurance. A good deal of publicity was thus given to overages and the Board stepped up its efforts to control and erradicate the problem. The approach taken was a moderate one. All country elevator records were examined in 1931 and the managers who had overages over the legal limit were asked to explain. The names of those who gave unsatisfactory explanations were noted, so that if problems occurred again, further action could be taken. In this 1931 annual report Ramsay stated that the Board understood the problems of the elevator companies and their policy had been "...not to create hardship by a ready acceptance of the belief that intent to defraud was present in an overage." Rather they would try and identify any really dishonest managers by a careful study of records and move to have them fired. This policy has remained unchanged to the present day.

Until the mid 1960's, the problem was handled directly by the Board. Every year special sessions were held at various prairie cities and agents who finished the year with overages were called before the Commissioners to testify under oath. The Assistant Commissioners always played an important role in this process, visiting problem elevators to get a firsthand look at the situation. After the mid 1960's the Assistant Commissioners had more responsibility for this problem and the special sessions of the Board were no longer held. Over the years a number of agents, who were found to be breaking the law by creating excessive overages, have resigned or been dismissed. On occasion, licenses have been temporarily lifted. On the whole, though, the vast majority of agents have been honest men and problems have been successfully handled by the Assistant Commissioners before a crisis arose.

Terminal Elevator overages were also a concern of the Board and the 1930 Act provided that the value of overages above a certain percentage of the total grain handled, must be paid to the Crown. After the annual weighover was done each year, any payments of this nature were requested from the companies in question. The amounts involved were generally small in the 1930's, ranging from nothing at all in some years to two or three thousand dollars.

In 1931, the Government passed the Wheat Bonus Act. The Act stated that producers in Alberta, Saskatchewan and Manitoba would receive a payment of five cents for every bushel of wheat grown and delivered to a licensee in 1931. The Board of Grain Commissioners was assigned the task of administering the payments. The mechanics of the distribution of money were that when the wheat was delivered, the licensee filled out a bonus certificate showing the total number of bushels received and handed it to the farmer. The producer then completed a portion of the certificate on which he stated that he was the grower of the wheat. He endorsed the certificate and cashed it at a chartered bank.

The certificates flooded in from all over the west to the Winnipeg head offices of the banks and thence to the Bank of Nova Scotia where payments were issued on behalf of the Board. The Board in turn reimbursed the Bank of Nova Scotia.

The Wheat Bonus Branch operated out of offices in the Winnipeg Post Office Building. The work of processing these certificates was handled by a staff which reached a peak number of 82 at the height of the shipping season in 1931. Many of the staff were former employees of the Department of the Interior, laid off when the Department closed its Winnipeg offices. Between September and December, 1931, 8.5 million dollars were paid out to western farmers. During the 1932 another four million dollars were paid. The staff fell steadily throughout 1931 until December when it numbered 5 people. The work had been done at a cost of $1.44 per $100 of bonus distributed. Bonus certificates continued to come in for the rest of the decade and small amounts were paid each year. There was some fraud in connection with the plan and a number of people were prosecuted as a result.

Another special Act under which the Board had some responsibility was the Inland Water Freight Rates Act of 1923. The Board had the responsibility, under this Act, to set maximum freight rates for the carriage of grain on the lakes, when, in their opinion, the rates became excessive or dicriminatory. This power was not exercised until 1932, when a crisis developed in the lake shipping industry.

Freight rates in June of 1932 were the lowest in 20 years and the various shipping companies joined together to form the Associated Lake Freighters Ltd. This company was intended to stabilize the rates and allocate ships for the movement of cargo on a fair basis. Rates for the transport of grain rose until in October they reached 7 cents a bushel. The Board then stepped in and persuaded them to lower the rate to 6.5 cents.

In 1933 competition was fierce and the freighter's association broke up. With very little grain moving rates fell to disastrously low levels. In May there was some evidence of discriminatory rates, the rate for shipping grain from the lakehead to Montreal being 6%22% cents per bushel while the rates to Sorel and Quebec were 6 cents. The Board issued an order imposing a maximum of 6 cents per bushel for shipments to all St. Lawrence ports and this was enough to bring forth a promise that further discrimination would cease. The order was cancelled the same day it was issued.

The next year the order was reissued and remained in force for the whole season, because the rates were, once again, discriminatory. The order established that the rates to all ports on the St. Lawrence would be the same. It was found at the same time that the elevator operators in these ports were competing for business by offering charges below the tariffs set by the Board. The Board killed two birds with one stone by making its freight rates order dependent upon the elevators abiding by the tariffs as set. This is an excellent example of the Board using its regulating powers to maintain order in the grain industry.

In the later 1930's and the 1940's and early 1950's, when the movement of grain picked up again, the Board protected the interests of the shippers by setting maximum rates each year for all or part of the season. Often the rates were allowed to rise at the end of the season, in November and December, because insurance costs rose at that time. After 1959 the situation on the lakes changed greatly because of the opening of the St. Lawrence Seaway. From that year, the Board ceased to set maximum rates, in order to encourage competition.

In the early 1930's, as the depression worsened, reducing expenditures became a top priority of the federal government. Prime Minister Bennet greatly strengthened the Treasury Board and made that agency the watchdog of federal spending. Reductions in spending were made at the Board of Grain Commissioners and each year in the early 1930's the annual report pointed out the amount of reduction over the previous year.

A lot of cutting was done in the area of temporary staff. The Board always increased its staff in the busy season and reduced it again when the fall rush was over. The tendency in these years was to make do without so many temporary workers. People who left the Board were not replaced. The total staff was reduced by 88 during the 1930's. It helped, of course, that very little grain was moving and, as a result, fewer samplers and seasonal and temporary workers were required for the weighing and inspection divisions. Once the grain began to move again in the late 1930's, more staff and larger expenditures were necessary.

One way in which the Board attempted to make its operation more economical was by reorganization. The project got underway in 1936 and it was the first time the organization of the staff had been looked at since 1918, when the new Civil Service Act had resulted in some changes.

In September 1936, the Board Secretary John Rayner, reported on the subject to E.B. Ramsay. His memorandum said that the staff appeared to have been built up without any plan. When there was a new activity, new staff were hired. In the 1920's when grain exports were quite large and new terminals were opened in Vancouver and Prince Rupert, the number of permanent staff expanded. The total workforce numbered about 900 people by 1929. The

Board earned a healthy average income in the 1920's and had surpluses in a number of years. Between 1929 and 1936, said Rayner, the average income had dropped by about $600,000, so that the Board could no longer afford the large staff it had employed nor was it necessary when the crops were so small.

Rayner suggested that a reclassification of the remaining staff would result in further economies but would also be good for morale. One of the greatest problems with the existing situation was that men in different locations were being paid different amounts for doing the same work. There was also no provision for training younger staff so that they could be promoted. Some locations depended too heavily on seasonal workers and others had too many permanent staff.

The proposed reclassification would change the status of almost 200 employees by either raising or lowering their classification. Another 100 positions were to be dropped or changed from full time to seasonal jobs. These large scale changes, affecting close to one half of the total staff, were submitted to the Civil Service Commission for approval and by the end of 1937 they had been put in place.

During the 1930's, Board members were involved in promoting Canadian grain abroad. In the summer of 1932 John Rayner and E.B. Ramsay went to Europe to arrange for milling tests for sample lots of Garnet wheat. In 1935 the Board purchased and shipped two cargoes of Garnet to two British mills to promote its use.

By 1937, the Canadian Wheat Board was established and taking the major responsibility for marketing, but from the beginning Board of Grain Commissioners staff supported the Wheat Board's efforts. In that year trial shipments of the new rust resistant Thatcher wheat were sent to British millers. Dr. Geddes of the Grain Research Laboratory accompanied the shipments and supervised the milling tests. In 1938 Geddes wrote a pamphlet on Thatcher's quality which was widely distributed and Commissioner Hamilton travelled to Britain and Europe to confer with the trade on the wheat's end use quality. The Annual report noted with satisfaction:

> "As a result of these various measures it is not apprehended that the introduction of Thatcher wheat as an important constituent in the higher grades... will cause any real difficulties." p. 5

In 1937, in response to the deputy minister's request for any proposed changes to the Act for the coming session, the Board prepared a lengthy list of 64 amendments. These, said E.B. Ramsay, were not changes in the basic principle of the Act, but fine tuning. After 7 years administering the Act of 1930 some weaknesses had become apparent.

The changes were first proposed by the Board in 1937 and they were put on the government's agenda for 1938. They were not, however, actually passed until 1939. The main reasons for the delay was the fact that Judge Turgeon had not yet issued the report of his 1938 Royal Grain Inquiry Commission. The minister wished to wait and incorporate any changes suggested by Turgeon with the other amendments. Final assent to the changes came in June, 1939.

One of the more important amendments dealt with the old issue of mixing grain in terminal elevators. In 1939 the mixing being contemplated was that of tough grain of a certain grade with dry grain of the same grade. This mixing was a way of producing an acceptable average moisture content without putting the grain through a commercial dryer which might damage its end quality. The practice was sound scientifically, in that in 1929 the Associate Committee on Grain Research had in their report "The Drying of Wheat" (NRC report No. 24, p. 113) recommended it as the best and safest means of disposing of tough grain.

The Turgeon report of 1938 summarized the safeguards against mixing built into the 1930 Act.

> "The Canada Grain Act, Section 125, prohibits mixing of wheat grade No. 1 Hard and Nos. 1, 2 and 3 Northern. This section resulted from a full discussion of the question in Committee during the 1929 session of the House of Commons. This non-mixing provision, linked with the establishment of high export standards, is regarded as an effective deterrent to mixing, but is strengthened by other regulations and safeguards of the Board of Grain Commissioners. These are the official inspection and the weighing in and out of terminal elevators and the registration of warehouse receipts. A terminal would be unable to obtain a clearance for grain in excess of existing warehouse receipts, even if it were technically possible to promote lower grades into a higher grade and still meet the export standards of the higher grade. The annual audit also provides that overages in excess of %21%% shall go to the Crown. This, in itself, would be a severe penalty, but in addition very severe penalties are provided by section 125, Subsection (5) of the Act." p. 120

In spite of these prohibitions, W.R. Motherwell, former minister of Agriculture and champion of the farmers' interests, still testified before the committee that mixing was one of the 4 great plagues of the western farmer, along with the drought, soil drifting and protein poaching. The issue, then, was clearly still alive.

There was some difference of legal opinion about whether the amendment was necessary since the practise had been carried on for almost ten years. A new subsection was inserted in the Act, however, stating:

> "Notwithstanding the provisions of subsection one and two hereof, the Board may by regulation permit, as a means of drying, the binning in a terminal elevator of western wheat graded into any of the grades specified in subsection two hereof with wheat which would be of the same grade except for the moisture content, which moisture content must not exceed a maximum of seventeen percent".

The practise of doing a complete weighover of all the grain in all the terminals every year was altered by an amendment to section 183 of the Act. While previous practise had been to do the job annually, although this was not specified in the Act, the amendment stated that the weighover could be done every 15 months. This reduced the amount of time during which the terminals were shut down and gave the Board some flexibility as to when the audit would be done.

Another issue that was raised in 1938 was regulation of the Grain Exchange. Judge Turgeon, on page 190 of his report, recommended that the Grain Exchange and futures trading in particular, should be regulated by the Board of Grain Commissioners. He suggested the appointment of an official who could ensure adherance to the Act and such regulations as the Board might make. The Board was not anxious to take over this responsibility and it was suggested the Wheat Board should supervise the exchange. In 1939 the Grain Futures Act was passed, giving the Board of Grain Commissioners the authority to regulate the Futures Market. This authority was never exercised. In 1973 the Grain Futures Act was made more effective when a Supervisor of Futures Trading was appointed. This official, while he reports to the Chief Commissioner, is not on the staff of the Grain Commission. Nothing more was done about the matter until 1973 when a supervisor of futures trading was appointed.

There were over 60 other changes to the Act in 1939, but they were all fairly minor adjustments of detail and did not in any way alter the underlying principles of the legislation.

The season of 1939 and those of the early 1940's produced excellent crops. The onset of war closed off most of Canada's traditional markets in the same period. The inevitable result was an elevator system that was completely glutted. The Board adopted various methods to ease the pressure. One of the amendments of 1939 allowed the receipt of grain into country elevators from boxcars. This allowed companies to shift grain from full elevators in high production areas to elevators in places where there was still storage space available.

In 1940 the situation became more acute and the Board began to issue licenses for temporary annexes built by the companies next to their elevators. Construction of these badly needed annexes was encouraged by allowing depreciation to be written off at an accelerated rate. Also, under an Order in Council issued under the War Measures Act, special annexes were licensed. These were buildings not constructed originally for grain storage - curling rinks, coal sheds — which now could be filled with grain.

In 1941 the crisis had moved on to the terminal ports and it became necessary to issue another Order in Council allowing the terminal elevator companies to erect temporary annexes at the lakehead. Others were put up at Sarnia and Three Rivers to accommodate the masses of grain pouring out of the west. Once again the government encouraged the companies to construct these buildings by allowing the companies to write off the whole cost of the structure over the years 1942 and 1943. As well, tariff charges would be continued without any reduction until July, 1943.

As the grain lay in storage, in vast quantities, insect infestation became a problem. In 1941 the Board hired Dr. B.N. Smallman, an entomologist, to inspect all terminals and develop a control program for an infestation of mites that began that year. Between 1941 and 1946, when he left the Board to head up the new Stored Products Laboratory in Winnipeg, Dr. Smallman waged a remarkably effective war on bugs. He inspected the elevators at the lakehead at least three times each year and worked closely with company officials, giving short courses on grain pests and developing surveillance programs. He helped elevator superintendants get insecticides which were scarce because of the war and he wrote pamphlets which were published and distributed by the Board. When Smallman left Winnipeg in 1951, to take a position in London, Ontario, the Cooperator praised his work and said that "The farmers of Western Canada, the milling companies and the grain handling companies are all deeply indebted to the efforts of Dr. Smallman and those who worked with him". (Manitoba Cooperator March 29/51).

At the end of 1941, E.B. Ramsay was forced to retire as Chief Commissioner because of ill health. He had done a good deal to restore the confidence of farmers in the Board. He managed to steer the difficult middle course between the producers and the trade with some skill.

Donald G. MacKenzie was appointed to replace Ramsay on January 1, 1942. MacKenzie was intimately connected with the organized farm movement and the grain trade. His father, Roderick, had been one of the founders of the Manitoba Grain Growers and later of the United Farmers of Manitoba. Donald MacKenzie was a Vice President and then Secretary Treasurer of the United Famers in the 1920's. He sat on the Board of the United Grain Growers and from 1928 to 1936 he was a Liberal Progressive member ofthe Manitoba Legislature, serving as Minister of Agriculture from 1932 to 1936. For the next six years he was the Vice President and General Manager of U.G.G. He was well qualified to take E.B. Ramsay's place on the Board.

When the over supply of grain in 1940 led to unprecedented congestion in the terminal elevators, it became clear that it would be necessary to control the allocation of boxcars in the country. The available cars had to be allocated fairly, to allow everyone the opportunity to ship grain. Consequently, in August of 1940 a Car Control Committee, chaired by Commissioner D.A. MacGibbon, was established. The Committee, consisting of representatives of the different elevator companies and the Wheat Board, apportioned cars on the basis of storage capacity in each elevator. This system functioned until October 1941 and during that period the Car Order Book sections of the Act were not operative.

The Car Control Committee represents the first example of something that was to occur repeatedly over the next thirty years - the overriding of the Act in an emergency situation. The problem was that as the Canadian Wheat Board was given more responsibility for marketing grain — in 1941 they began to control the flow of grain with quotas, in 1943 the Board became the sole marketer of wheat and in 1949 of oats and barley — the Car Order Book provisions came into conflict with that Board's activities.

The purpose of the Car Order Book sections was to give the producer the freedom to ship his grain when and how he chose. The Wheat Board's priority has been to move the type and grade of grain required to export position at the correct moment to meet sales commitments.

The results can be seen clearly in the situation of October, 1941. In that month the Car Control Committee ceased to function and car allocation was to be done according to the Act. At the same time, however, the Wheat Board ruled that, in order to meet sales contracts, feed grains would be moved forward in preference to wheat. The Act was in force but the requirements of the Wheat Board had to be given a higher priority. In 1943 the Wheat Board intervened again in the allocation of cars and introduced the car cycle policy. For the next year or so cars were assigned to elevators according to their gross primary receipts in the years 1938 to 1940.

From time to time wartime disruption led to conflicts between agencies. In 1944 for example, the Chief Commissioner, D.G. MacKenzie, wrote to the Minister of Trade and Commerce, James MacKinnon, asking for some clarification. Labor shortages at the lakehead had resulted in higher wages for terminal workers and this had resulted in the elevator companies requesting higher tariffs. The shippers had protested to the War Time Prices and Trade Board and that agency ruled that the increases were not justified. MacKenzie pointed out that:

> This view seems to be in conflict with the usual practise of the Board of Grain Commissioners who, in determining tariffs, always have regard for operational costs. (PAC RG80 Vol. 22).

The Minister stated that the Board of Grain Commissioner's authority in settling tariffs was beyond doubt and that the Price Board would defer to it.

The war caused severe shortages of labor for the Board and for the grain industry in general. Many men joined the forces or left to do other war related jobs. Women were hired in great numbers by the Research Laboratory and to do clerical duties. The problem was compounded by the fact that the Board was not able to offer wages as high as those paid by private companies. Many staff members who were of retirement age stayed on the job until the end of hostilities released men and women to return to their positions.

The late 1940's saw a return to normalcy. There was some reduction in crops and therefore in grain movement. The emergency structures at the lakehead and elsewhere came down in 1946 and the Order in Council allowing this type of storage lapsed. A number of other Orders in Council passed during the war years were added to the Act as amendments. Statutory grades for rapeseed, sunflowers, soybeans and peas were added, as was a provision lengthening the time between weighovers. During the war, when the terminals were plugged with grain, it had been impossible to do weighovers in every crop year and the allowable delay between audits was extended to 22 months.

A change in the Car Order Book procedures had been made by order in council during the war and it was now added to the Act. The change was intended to benefit farmers. It stated that when a producer secured a car to ship a load of grain and subsequently sold the grain, the right to the car would pass to the new owner. Because the buyer was assured of being able to move the grain, the price paid would be higher than if he were liable to have to leave it in storage.

The years between 1947 and 1951 saw an increase in country elevator overages and attempts by the Board to solve the problem. In 1947 there were large overages at almost 500 elevators — nearly 10% of the total number. The Board responded to this alarming statistic by holding special sessions at a number of western cities during which operators were questioned under oath. No real evidence of deliberate cheating was found, although some sloppy practises were uncovered. The next year even more operators registered overages. It was decided that this indicated that the allowance for shrinkage was too generous — the operators were allowed under the regulations to take more grain to cover losses than they were actually losing. So the shrinkage allowances were adjusted downwards to levels closer to reality.

In 1949 it was found that the new allowances resulted in small overages but also in some losses to the elevator companies. In 1950 and again in 1951, therefore, the shrinkage allowance was increased slightly. This sort of adjustment is necessary from time to time as grain handling techniques improve and less allowance for losses is necessary, and as crops vary in condition at delivery.

Prosecutions were generally undertaken by the Board when matters could not be settled by the less complex means of negotiations or issuing a Board Order. A case arose in 1948/49 which is worth describing because it illustrates the procedure followed in prosecutions.

In the fall of 1948 some elevator operators were discharging grain from their bins and storing it in unlicensed facilities or on the ground in the open. The Board felt this was a clear violation of section 103 which said that an elevator agent could not discharge grain belonging to someone else from an elevator, except to ship it out. A Board Order was issued October 1, stating that dumping excess grain on the ground was a breach of Section 103. The matter was discussed at meetings the Board members attended that fall.

On October 11, the Assistant Commissioner for Alberta, M.M. MacKinnon, reported to John Rayner that an elevator agent in a town near Red Deer had dumped about 8000 bushels of grain in a baseball diamond near the elevator. By the end of November, MacKinnon had been to Winnipeg to give the details to the Board's solicitor, C.B. Phelp, and the Board, on the basis of the evidence, had taken the decision to prosecute.

Rayner instructed MacKinnon to secure the help of the RCMP in gathering information for laying a charge. A summons was served on the person designated to represent the grain company and a hearing took place before the Police Magistrate at Red Deer on December 16, 1948. A plea of not guilty was entered and the date was set for a hearing in January.

After several delays the case was finally argued in December of 1949. The lawyer for the company argued that Section 103 did not refer to country elevators and that the grain in question belonged to the company. The Board's lawyer argued that the section applied to all elevators and that the grain belonged to the Wheat Board, the company having purchased it as the Wheat Board's agent. A conviction resulted and a fine of $100.00 was paid. The grain company did not appeal the court's decision.

The case was important because it served to reinforce the Board's authority and clarify the application of a section of the Act. It thus benefitted the Trade and the Board.

In 1948 there were complaints from British millers about the quality of Canadian exports.

The familiar unfavorable comparisons with cargoes received in the past were made. Commissioner MacKenzie and John Rayner travelled to a number of British milling centers to consult with the millers and explain the reasons why, from year to year, there are variations in Canadian exports.

The end of the 1940's saw the retirement of D.A. MacGibbon and C.M. Hamilton from the Board. Commissioner Hamilton retired in January, 1948, after almost twenty years of service and Dr. MacGibbon left during 1949. Hamilton was replaced by another pioneer Saskatchewan farmer, John Vallance. Mr. Vallance had been Assistant Commissioner for Saskatchewan from 1943 to 1948 and he was the first of a number of Assistant Commissioners to be appointed to the Board. This no doubt gave him a different perspective from someone coming from an entirely different line of work. Before serving as Assistant Commissioner, Vallance had worked for the Prairie Farm Rehabilitation Act from its founding in 1935, until 1943. When he left PFRA he was Superintendent of Water Development. Previous to that he had spent ten years as the Liberal M.P. for South Battleford.

Vallance thus had a political background but he had also spent a number of years in the new beaucracy that was growing up to serve agriculture. There would be more Commissioners with this sort of experience as time went on.

Roy W. Milner was appointed in 1950 to replace Dr. MacGibbon. Commissioner Milner was an unusual appointment for the Board in that he had spent his life working for the private grain trade. With the exception of J. P. Jones, the private trade had never had a representative on the Board. The Free Press reported that Mr. Milner's acceptance of the job "came as a surprise" because it would mean a substantial reduction in his salary. (FP Jan. 6/50). His appointment by C.D. Howe can be seen as evidence of the Minister's desire to work closely with business. Milner proved to be an exceptionally able and energetic Commissioner and he was Chief Commissioner from 1956 to 1960.

R.W. Milner's father, W.E. Milner, was active in the Winnipeg grain trade and he followed in his father's footsteps. He went to work for Zenith Grain Company in 1912 at the age of 17. After serving with distinction in World War I, Milner returned to Winnipeg and worked for the Alberta Pacific Grain Company and Jackson Brothers. Between 1943 and 1950 he was Vice President and General Manager of Alberta Pacific and lived in Calgary.

There were a number of significant amendments to the Act in the early 1950's. One, which would have more importance later, gave the Board the power to control American grain moving through Canadian eastern elevators for export. The mechanism used was special permits which were issued to elevator operators, handling U.S. grain. In years when more space was required for Canadian grain, the permits could be used to ensure that the terminals and transfer elevators did not fill with foreign grain.

In 1952 the Act was changed to allow the Chief Commissioner, D.G. MacKenzie, to embark on his second ten year term. Commissioner's salaries, unchanged since 1930, were adjusted.

Perhaps the most striking feature of the grain industry in the early 1950's was the massive surplus of grain that accumulated in the system. Once again special storage had to be licensed. The increasingly large crops of 1950, 1951 and 1952 created a transportation problem as well as a storage problem. Part of the solution was to appoint for the first time in peace time, a Transport Controller under the Department of Transport. R.W. Milner was appointed to this position in August, 1951 and he held it until December 1956. In most years he divided his time equally between his duties as Transport Controller and Grain Commissioner.

As Transport Controller he had the thankless task of coordinating rail and lake transport for grain and all other commodities — coal, iron ore etc. The regulations under which he worked gave him the power to break contracts and redirect vessels and grain cars to relieve bottlenecks. Throughout his years as controller he was able to secure the cooperation of the railroads, ship owners and elevator companies without being forced to invoke fines or use his legal powers of coercion.

Mr. Milner's style was to use personal contact and he was less interested in winning friends than in getting the job done. In March and April 1956, for example, he was having trouble getting cars for the C.P.R. He telephoned the CPR president, N.R. Crump.

> "It was not until I appealed to Mr. Crump personally and told him that I was sick and tired of excuses, that we must get more boxcars into Western Canada to look after this situation, that I got action. He got rid of the pencil pushers and theorists he has there and after that time we had an excellent supply of boxcars."

The Car Order Book provisions of the Act were suspended on a number of occasions by the Controller. From December 1951 to July 1952 and October 1952 to December 1953, the Wheat Board's program took precedence over the Car Order Book provisions. Again in 1954/55, when there was strong demand for oats and barley, cars had to be found to move those grains to the terminals. Milner worked closely with the Wheat Board to insure that the necessary rolling stock was available.

Insect infestations were another result of the high production and large carryovers of the early 1950's. In 1956, the Board hired Dr. H.E. Gray, an entomologist, to institute some insect control measures. He instituted a program of terminal inspections, he conducted short courses and he talked to grain trade gatherings. By 1958 infestations had decreased because of his efforts. Since that time the Board and later the Commission have always employed an entomologist to do this work.

In 1955 the Act was amended to provide for two Assistant Commissioners for the province of Saskatchewan. This was done because of the relatively larger workload in the province with the most grain elevators and the largest grain and oilseeds production. One of the Assistant Commissioners was stationed at Saskatoon and the other at Regina.

In 1955 Commissioner Vallance retired on account of age and was replaced by S. Loptson, a farmer and implement dealer from Bedenbury, Saskatchewan. Between 1947 and 1955, he had been a director of the United Grain Growers.

The Board embarked on an information program during the 1950's. Previously there had been no organized attempts to explain the grading system or the rest of the Board's work, although all the staff who came in contact with the public, were constantly engaged in such explanations. In 1949, for the first time, an exhibit was placed at the Brandon Winter Fair. In 1953 several country fairs were visited by the exhibit which included information on the inspection branch, the laboratory and the work of the Assistant Commissioners. In 1957, a semi trailer and truck were purchased and manned by two inspectors. The exhibit visited fairs all over the west. Ten years later the trailer was replaced by a smaller van which continued the same work.

During 1953 the first version of the pamphlet "The Farmer and the Country Elevator" came off the press and the National Film Board began work on a twenty minute documentary on the Board. This film, Grain Handling In Canada, was released in 1955 and was shown to thousands of audiences until it was replaced in 1969 by another film, "Canadian Wheat", which dealt with the work of both the Wheat Board and the Board of Grain Commissioners.

Closely related to the information program directed toward Canadians was a marked increase in overseas contacts during the 1950's. The Commissioners and Chief Inspector and Chief Chemist began to travel extensively in the 1950's as part of the Wheat Board's attempt to open new markets. The percentage of total Canadian exports of grain taken by the United Kingdom declined steadily through the decade and India and Japan joined our traditional Western European customers as larger importers. Finally, in 1960 China and in 1963 Russia entered the picture. These and other new purchasers needed to be briefed about the Canadian grading system and the quality of Canadian grains and oilseeds.

The Wheat Board brought grain industry officials from potential market countries to Canada and a part of their program was a visit to the Board's facilities.

D.G. MacKenzie retired from the position of Chief Commissioner in 1956, having reached the age of 70. R.W. Milner, who resigned from the position of Transport Controller in December of that year was appointed to take his place. The one empty spot on the Board was filled by George McConnell, a farmer from McConnell, Manitoba. G.N. McConnell was a strong supporter of the cooperative movement and had served as a director of the Manitoba Pool from 1930 to 1940. From that year until his appointment to the Board in 1956, he was Vice President of the Pool.

In December of 1957, the car allocation problem surfaced once more. Throughout the 1950's, there had been controversy over which method of car allocation should be used. The Pools favored a system that safeguarded the farmer's right to choose the elevator he delivered to — a right he had under the Car Order Book provisions — and that apportioned cars according to volume of grain handled rather than storage capacity. This was because Pool members did not want to be forced to deliver grain to competition elevators and because, at some points, the Pool elevators had a large throughput and wanted enough cars to handle it. The private companies had, to a much greater extent than the Pools, built additional storage to accommodate the glut of the early 1950's. Car allocation on the basis of storage gave than an edge.

The United Grain Growers favored having the Wheat Board allocate cars to each company on the basis of the volume of Wheat Board grain handled by them. The companies could then decide which elevators would get the cars.

In 1955 the Commons Agriculture Committee recommended that the Wheat Board order the railways to spot cars at elevators on the basis of Wheat Board orders approved for each elevator. This system was tried for a while, but like all the others it had problems and inspired a lot of criticism. It was very difficult to find a system everyone could agree with.

In late 1957 and early 1958 the issue heated up when Pool organizations began to complain to the Minister of Trade and Commerce, Gordon Churchill, that their right to deliver to Pool elevators was being taken away from them. The government finally decided to deal with the question in the time honored manner by setting up a royal commission. John Bracken was appointed in January, 1958, to inquire into the car allocation problem.

Bracken's report, published in the spring of 1959, did not, unfortunately, offer a workable solution to the problem. He did recommend that the Wheat Board have control of car allocation. In assigning cars he wrote that the Wheat Board should allow the farmer to choose the elevator to which he delivered grain, distribute cars so that all elevators would have a chance to ship grain and get the type and grade of grain required to export position. How they were to accomplish this superhuman task was not specified.

The report did not address the problem of the conflict between a Wheat Board directed system and the Grain Act which gave control of car allocation to the Board of Grain Commissioners. Resolution of this difficulty would have to wait until 1970 and the revision of the Act. In the meantime the allocation, largely directed by the Wheat Board, was based on what came to be termed the "Bracken Formula" which gave principle recognition to the volume of grain handled in the previous year.

In 1961 R.W. Milner retired from the Board and G.N. McConnell was appointed Chief Commissioner. The resulting vacancy on the Board was filled by A.V. Svoboda, who had served as Assistant Commissioner in Saskatoon since 1959. Mr. Svoboda was a farmer who was also a lawyer and the first Conservative appointee to the Board since 1917.

In November, 1960, responsibility for the Board had been transferred from the Minister of Trade and Commerce to the Minister of Agriculture. The minister at the time was Alvin Hamilton who also brought the Wheat Board under his control and devoted a great deal of energy to grain matters. The transfer did not take place without some difficulties. The Board had enjoyed a good deal of autonomy under the Department of Trade and Commerce. The Department had really confined itself to acting as the Board's representatives in Ottawa when liaison with Treasury Board or the Civil Service Commission was required. The Department of Agriculture designated the Board as a Branch for administrative purposes and attempted to integrate the Board into its structure.

In the first two years of being part of Agriculture, the Board had three Chief Commissioners. R.W. Milner was succeeded by G.N. McConnell in January 1961 and, when Mr. McConnell died in November 1962, F.F. Hamilton was made Chief. A native of Saskatchewan who still farms in the Mazenod district, Mr. Hamilton served with distinction in the RCAF during the Second World War. In 1961 he had been appointed Assistant Commissioner for Saskatchewan and served in that capacity until he became Chief Commissioner. After leaving the Board, he was elected to the House of Commons and sat as the Conservative member for Swift Current — Maple Creek from 1972 until his retirement in 1984.

One of the results of the rapid turnover in the early 1960's was that a process of amalgamation into the Department of Agriculture proceeded without much input from the Board. By 1966 a number of problems had manifested themselves and were raised with the then Minister, J.J. Green. The Deputy Minister and departmental officials had on occasion questioned the decisions of Board administrators. It was pointed out at a meeting in June 1966 that the Act gave the Board a good deal of autonomy and that this was necessary in order for it to successfully administer the Act. Similar problems had arisen in the 1920's when special relations with the Civil Service Commission had been worked out. The Minister's immediate response was to appoint an informal ambassador to carry communications between Ottawa and Winnipeg. Over the years a successful compromise has been reached with the department which gives the Board, now the Commission, the freedom it needs to carry out its obligations.

In 1967 the Public Service Staff Relations Act was passed, establishing collective bargaining in the federal civil service. In the same year the Financial Administration Act was amended to make the Treasury Board the managing body of the civil service with responsibilities for collective bargaining, classification and conditions of employment. The Public Service Employment Act relegated the Civil Service Commission, now called the Public Service Commission, to the role of recruiter for the service.

The process of signing collective agreements with all Board staff took two years. In 1968 about half the employees were brought under such agreements and the next year the process was completed. All positions were reclassified and hourly pay was instituted for many groups. There were numerous difficulties in interpreting the clauses and making the transition.

In late 1967 a 3 man Safety committee, including former Chief Inspector Conacher, set out to study the working conditions of Board employees in the terminal elevators. A report was prepared, which included recommendations for improvements. On the whole the elevator companies cooperated willingly in making these changes. Local safety committees were established to raise the awareness of the staff.

In 1970 the second major revision of the Canada Grain Act took place. The revision had been almost a decade in the making, although intensive work had only begun when H.A. Olson became Minister of Agriculture in 1968. As early as 1959, M.J. Conacher, then Chief Inspector, had spoken of the need for a major overhaul of the grade structure. In 1965 the Board appointed Conacher as a special advisor to prepare the ground for just such an overhaul. Over the next two years he gathered opinion and information, first from overseas customers and then from the branches of the grain industry in Canada. He travelled abroad and held meetings in Toronto, Winnipeg and Vancouver. Then, with the help of an advisory committee composed of representatives of the Board of Grain Commissioners, the Wheat Board and of the grain trade, recommendations were formulated and a report written. The final document consists of almost 200 pages of proposed changes to the grading system, many of which were incorporated in the 1970 amendments.

In July 1968 H.A. Olson became Minister responsible for the Grain Act. At his first meeting with officials of the Board, he announced that he "wanted a new Act". There followed two years of intensive work by a group under Commissioner C.L. Shuttleworth. The other members included V. Martens, Board Secretary, E.E. Baxter, the Head of Economics and Statistics, the Chief Chemist, Dr. N. Irvine and the Chief Inspector, M.M. Ainslie. Liaison with the Department of Agriculture was handled by R. Phillips and two employees of the Department of Justice, Henry Monk of Winnipeg and Edythe Macdonald of Ottawa looked after the wording and general design of the Bill.

The proposed legislation, which reached second reading in April of 1970, did not have an easy passage. A good many objections were raised while it was before the Agriculture Committee in May and June. The Committee heard briefs from the major grain handling companies and producer groups, most of which were critical. In the fall, so many amendments were proposed that there was no time to pass into law before the end of the session. It had to be resurrected and examined once more by the Agriculture Committee before being passed on December 18.

Introducing the Bill in the House in April, at the start of this long process, H.A. Olson explained why a new Act was needed. Most obviously, the grain industry had changed tremendously since 1930. Many parts of the old Act were anachronistic and obsolete. New procedures had developed and new organizations — notably the Canadian Wheat Board — had appeared on the scene. These changes had to be accommodated.

The Canadian grain handling system, after decades of very little change, was on the verge of a major rationalization. A mountain of commissions and studies had begun to grow, each with its set of recommendations about what should be done to produce a more efficient, throughput oriented handling system. Some of the proposed amendments to the Act were designed to help in this rationalizing process.

The markets for Canadian grains and oilseeds had also changed over the years since 1930. The United Kingdom and Europe had been displaced by countries like Japan, Brazil, China and Russia as our primary markets. Our customers in some countries had also begun to demand more uniformity in the quality of our grain products, especially when it came to protein content. These and other factors made changes to the grading system essential.

From the strictly legal point of view the 1930 Act was not organized according to the standards and principles of 1970. It was felt it needed to be redrafted, to bring it into line with other legislation.

The proposed changes to the Act, which, with one or two exceptions, were all eventually passed into law, dealt with both the grading system and with the regulation of grain handling. The most important change to the grading system was designed to give it more flexibility, so that Canada could respond quickly to marketing opportunities. To do this the grade definitions were removed from the Act altogether and placed in the regulations. In this way the Board, or the Canadian Grain Commission as it now would be called, could change the grades without having to ask for a formal parliamentary amendment to the Act. Changes were, of course, to be approved by the Minister and Parliament had to be informed within 15 days of such approval being given. Ordinarily changes would take effect a the beginning of the crop year on August 1 and had to be approved at least eight months prior to that date. This would give the trade time to prepare for the change and minimize possible losses. Changes could be made on shorter notice if they would "increase the acceptability of Canadian grain in the market".

A change that everyone wanted to see was provision for protein content as a quality factor. This was covered in two sections which allowed for the use of non visual quality factors in grading.

The Grain Standards Committee went through some fundamental changes in the 1970 revision. The number of Commissioners on the Committee was reduced from three to one. There were fewer producer representatives specified in the makeup of the Committee, although the three members appointed by the Commission could be producers. New groups like the Wheat Board and grain exporters were represented for the first time. The responsibilities of the Committee were expanded — its members could now make recommendations about all and not just commercial grades.

In the grain handling area of the Act the fundamental right of the producer to order and load a boxcar with his grain was brought up to date. The Car Order Book was dropped from the Act, although the individual farmer could still apply for a car. Now he would do so through the Commission, which in turn order the car from the railroad, provided the applicant had a permit book and enough quota to deliver the carload of grain. Within each shipping block producers would be entitled to a percentage of the cars loaded. That percentage would be specified in the regulations, so that it could be changed easily to meet changing conditions.

There was a good deal of criticism of this change. It was claimed that the producer's basic right under the old Act had been undermined. In reality that right had been placed in the context of grain handling in the 1970's.

In the late 1960's a joint government-industry Grain Transportation Committee and the Ottawa based Grains Group had undertaken a series of reviews of the grain handling system. Some of their recommendations, which influenced proposed changes to the Act, alarmed the elevator companies who saw in them possible elements of nationalization. For example, some additions to the licensing section of the Act, were designed to encourage a more efficient system, were not greeted with much enthusiasm. The original proposals stated that a license might be refused for an elevator located at a non viable delivery point. Similarly, a license might be denied if an elevator was not equipped with cleaning and drying machines. These provisions, designed to give the Commission some control over the rationalization of the elevator system, ran into stiff opposition and were dropped or modified.

CHAPTER 13

INSPECTION 1930-1970

The decade of the 1930's was one of great variations in grain production in Western Canada. Under pressure of drought, heat, rust, grasshoppers and some early frosts, production declined precipitously in the years from 1930 to 1937. The total number of cars inspected fell from 248,000 in 1930 to 113,000 in 1937/8. Then there was a slow recovery, the harvest of 1938 producing more grain than the previous year and the crop of 1939, produced and harvested in perfect conditions, promising a return to better times.

Drought and heat devastated the Palliser triangle. Ironically, although these conditions resulted in low yields, they helped to produce very high quality levels in the grain that was taken off. Drought in the south meant that the parkland areas and the Peace River country accounted for a larger proportion of the total crop than was usually the case. Because these areas are more susceptible to early frost and wet harvesting, comparatively large amounts of tough, damp or frosted grain were graded in 1930 and 1933. Between 1932 and 1934 grasshoppers ate a large portion of the crop before it could be threshed.

The worst grading problem facing the Inspection Department in the first half of the 1930's was the controversy over Garnet wheat. This early maturing red spring wheat was first developed by Sir Charles Saunders from an original cross in 1905. His successor as Dominion Cerealist, L.H. Newman, decided Garnet was worth reproducing and by 1926 he had enough seed to test it all across the prairies.

Garnet was well suited to northern areas because it matured early and escaped the frost that damaged older varieties like Marquis. This factor made it popular in the south as well, since early maturity helped it to avoid the worst ravages of rust infestation. Garnet also produced good yields. For these reasons there was widespread demand in the west for the licensing of Garnet. The Minister of Agriculture, W.R. Motherwell, and his department were quite proud of the contribution they had made to western agriculture.

The first cloud appeared on the horizon in 1927 when the Chief Inspector, J.D. frazer, ruled that Garnet would not be allowed into the No. 1 Northern grade on the grounds that its milling and baking quality was not equal to Marquis. Dr. Birchard of the Research Laboratory had done tests which showed that the wheat produced a yellowish flour. Because the wheat produced a yellowish flour, he advocated caution until the attitudes of European millers toward such flour could be ascertained. The Department of Agriculture laboratory had noted the color, but had discounted it as an unimportant factor.

The stage was set for a struggle between the Agriculture officials, impressed by Garnet's agronomic qualities, and the Trade and Commerce officials at the Board, doubtful about end use quality and the effect this might have on exports. In 1928 the House of Commons Agriculture Committee became involved when L.H. Newman testified before them that the question raised about the wheat's quality were not justified. The Committee passed a resolution that Garnet should be allowed into the No. 1 grade. The Chief Inspector and the Board held to their position and received the backing of their minister, James Malcolm.

This position was not popular with many western farmers nor with their old champion, W.R. Motherwell. In the fall of 1928 he wrote two sharp letters to Commissioner Boyd, accusing the Board of ignoring the evidence in favor of Garnet. Boyd maintained that his chief concern was the reputation of Canadian wheat in the export market.

In 1929 an effort was made to end the impasse when Newman and Dr. Birchard were sent to Europe with a shipment of 6700 bushels of Garnet. They were to distribute it to millers in various countries and get their opinion of the wheat. One of the British millers who tested it summed up what was to become the standard opinion of Garnet:

> There is no doubt in my mind that we can make very good use of the wheat in London, providing we can buy it separately as Garnet wheat. In fact, it has a distinct value of its own, but if mixed with Manitobas, it will not only lose its own distinctive value, but it will tend to greatly lower the distinctive value of the Manitoba wheats.

Upon their return, in September 1929, the two scientists reported that Garnet was saleable, but that it needed special handling and should probably be segregated into its own grades. It was not, however, until August, 1935 that the separate Garnet grades were officially in use. The intervening years saw many problems.

In spite of the grading problem, Garnet came to be grown over large areas, expecially in Alberta. By 1936 22% of wheat acreage in Alberta, 8.5% in Saskatchewan and 2% in Manitoba was sown to Garnet. Before the changes to the Act in 1935, most Garnet was exported as an admixture in No. 2 Northern wheat. It was present in varying amounts from a few percent to 50% of the total cargo. It was found in greater quantities in shipments from Vancouver, because of the large acreage in Alberta. It had an effect on the price of shipments from Vancouver, shipments of No. 2 being worth a few cents less per bushel than wheat shipped from the lakehead.

The process of establishing separate grades was a long one, for a number of reasons. Commissioner Ramsay resisted the idea at first because he felt something should be done to develop a market for Garnet before it was offered separately. Later the problem of financial losses incurred by the owners of wheat the grade of which was changed had to be considered.

In February 1931 the Associate Committee on Grain Research issued a report recommending separate grades. In October of the same year the Western Grain Standards Committee met and recommended the same thing. The Committee had been divided on this issue, the producer representatives opting for separate grades and the Chief Commissioner and his staff preferring to postpone the change. During the summer the Minister of Trade and Commerce, H.H. Stevens, had come out in favor of new Garnet grades and that decided the matter. Commissioner Ramsay made the motion to establish the grades at the Committee meeting.

Stevens introduced the matter in the House in the spring of 1932 and it was referred to the Agriculture Committee. After some heated debate, during which W.R. Motherwell again tried to champion the cause of Garnet, the Committee voted to make the change to the Act. There were to be two new grades, 1 C.W. and 2 C.W. Garnet and Garnet as an admixture would be relegated to No. 3 Northern or lower.

It was to be two more years before this amendment was brought before the House of Commons and passed. There were a number of reasons for the delay. Ramsay and other Trade and Commerce officials were reluctant to open the Grain Act for amendments so soon after the major changes of 1930. The elevator system in 1935 held 38,000,000 bushels of No. 2 wheat which contained Garnet. With the change to the Act this wheat would be technically illegal and, more importantly, would lose a good deal of its value. Nor was there much prospect that this wheat would be moved out of the elevator system, since the Government was pursuing a policy of holding onto wheat in storage in the hope that the price would go up. Given the situation, there is a understatement in this line of the 1935 annual report: "We cannot stress too strongly the great disturbance which the changing of a major grade creates."

The administrative nightmare was solved by setting up a division in the No. 2 grade. All inspection certificates covering this old wheat were stamped "old grade". It was hoped that in this way the wheat would bring a slightly higher price than if it were simply degraded to No. 3. Anyone who suffered financially because of the change was compensated from a special fund set up by Parliament.

The Garnet problem brought about a number of changes in the Canadian grain industry and these are discussed by Dr. Irvine in his book. From the point of view of the Inspection Department, the controversy illustrates how the grading system can, at times, be brought under tremendous political pressure. The Board and the Chief Inspector were forced to take an unpopular stand in order to block what they saw as a threat to the quality of Canada's export wheat. As has happened on a number of occasions, they were proven to have been right in spite of the unpopularity of their position.

The harvest of 1934 saw another heated controversy over grading. Farmers in some districts of northern Saskatchewan and Alberta began to complain about the variability of grades assigned to their grain by the country elevator operators. Widespread frost damage in this area served to increase dissatisfaction with the grading. There were some grain delivery strikes and farmers around Mundare, Saskatchewan cut off deliveries altogether.

Members of the Board travelled to the area and held meetings at Mundare and Grand Prairie, Alberta. They established that there had been improper grading — the grades in store in the elevators bore little resemblance to the grades given on delivery. They did, however, conclude that the producers had, on the whole, benefitted from the misgrading. Of course, as was pointed out in the Annual Report, "Such grading... results in great inequality as between individuals." and "Under such conditions it is extremely difficult for the Board to maintain the farmers confidence in the government grading system." (p.6).

Some of the farmers had attempted to send samples to Winnipeg to settle disputes. In many cases, however, there were of less than the necessary two pound size and some were lost in the mail. The Inspection Department resolved, therefore, to publicize and enforce more strictly the rule that these samples must be at least two pounds.

The harvest of 1935 was similar in size of yield to the two which preceded it. Drought and heat took their toll and to these problems was added the major rust epidemic of that year. The Standards Committee established 3 special grades — No. 4, 5 and 6 Special — to handle the rusted wheat. About 7.5% of the spring wheat crop fell into these special grades.

The crop of 1936 was the smallest since 1919. Hot dry weather scorched the wheat crop and special Barley grades were established to handle grain that was light because of the drought.

The Canadian Wheat Board was established in 1935 and in 1936, the new Chief Commissioner J.R. Murray made a concerted effort to sell off the hugh quantities of wheat that had been accumulated in storage by the Wheat Pools Central Selling Agency and which had not passed under the control of the new Board.

The export of over 40,000,000 bushels of wheat, put a heavy burden on the Inspection and Weighing staff at the lakehead but the Board of Grain Commissioners was pleased to see the end of the huge stocks of grain representing the crops of a number of different years. As was noted in the annual report:

> Exporting grain of two or three different crops at the same time tends to wider variations in cargoes than is the case when the major portion of the crop is disposed of during the crop year in which it is harvested. (1936, p.5)

This variation was the source of most complaints from foreign buyers during these years. The report of the Turgeon Royal Commission, issued in 1938, underlined this problem and pointed out that there was a feeling abroad that the overall quality of Canadian grain had deteriorated. Turgeon argued, however, that the variation in quality and the fact that the standard samples did not really represent the actual cargoes being exported, were temporary abberations. They were the result of the mixing of the crops of a number of years and the temporary prominence of wheat from northern areas, due to the drought in the southern prairies.

The Turgeon Royal Commission of 1936 to 1938 dealt mostly with marketing questions, but the report contained one chapter on the "Quality, Grading and Handling" of Canadian grain. Aside from the question of variation of quality, the report touched on protein selection and mixing.

Judge Turgeon dealt with two questions concerning protein segregation. One was a concern of W.R. Motherwell that the practise of Canadian Millers of selecting high protein wheat or more precisely wheat from areas which produced high protein wheat, before the grain reached the terminal point lowered the overall quality of Canada's exports. Studies by Dr. Geddes of the Research laboratory showed that this selection was not a significant influence upon overall quality.

The second question was whether or not to introduce some form of protein grading. The conclusion seems to be that it would not be worth while since the market for wheat of specific protein levels was very small at the time. Only the United States, which in most years could supply its own requirements, and France paid premiums for protein. Judge Turgeon recommended that when these premiums were paid, they should be carried back to the producer, although he does not suggest how this could be done.

Mixing continued to be a concern of producers in the 1930's. Turgeon concluded, in agreement with Commissioner Ramsay, that the 1930 amendments to the Act, which made mixing illegal in the top three grades, protected the quality of the export crop. The results of weigh overs of grain in terminal elevators done in the 1930's support this conclusion in that very few cases of overages were uncovered.

In contrast to the royal commissions of the 1920's, that of 1938 found that there was less criticism of the grading system amongst farmers. (p. 111). This may have been in part due to the increased efforts of the Board and Inspection Division to communicate with farmers about their objections.

In February 1938, the Inspection Division was requested to help the Canadian Wheat Board in Saskatchewan and Alberta. The Wheat Board had been appointed to purchase seed and feed wheat for distribution by the provincial ministries of Agriculture. About 15.5 million bushels of grain was purchased and stored at country points for distribution to needy farmers. The Wheat Board requested that this grain be sampled and graded in the country so that producers could be paid on the basis of grade. Inspection staff travelled to the country locations to do the work.

In September of the same year an inspection office was opened at Chatham for the first time. This was done in response to requests from Ontario corn producers.

The harvest of 1938 saw the beginning of a return to larger crops. The harvests of 1939 and 1940 produced the best crops in over ten years. This increase in production, coupled with the closing off of European markets because of the War, led to huge carryovers and the resultant storage problems.

The harvest of 1940 saw some grading problems which resulted from the adjustments of harvesting machinery and not the weather. In some districts damaged kernels in the form of split or clipped kernels forced the degrading of the wheat. Public meetings were held at La Fleche, Saskatchewan, and Vulcan, Alberta to explain the problem. Assistant Commissioners visited other areas and information was spread through circulars and radio spots.

In 1941 James Frazer retired. He had been Chief Inspector since 1925 and a grain inspector since 1900. He passed away a year later at the age of 66.

In 1942 the Canadian Wheat Board began to purchase soybeans from Eastern Canada. Grade specifications for both these oilseeds were drawn up by BGC and authorized by order in council after consultation to the producers and handlers of the product.

Many such orders were written during the war years covering all aspects of the Board's work and after the War they were formalized in amendments to the Act. This was the first case of grades being established by order in council. A second instance occurred — 1943 when rapeseed and sunflowers were grown on the prairies for the first time. Official grades were established by order in council.

A feature of the war years was the large scale export of feed grains to the United States. This caused inspection problems because some of this grain was shipped directly from the country across the border without passing a primary inspection point. The problem was solved in two ways. New inspection points were established at Lethbridge and Coutts, Alberta. In other areas, shippers were required to take a sample and send it to Winnipeg for grading.

A growing American market for malting barley resulted in grade changes in 1945. To keep the yellow smooth awn varieties out of shipments to the U.S. two new commercial grades were established — 2 and 3 C.W. yellow.

With the end of the war and the opening of Western European and Mediterranean markets, grain exports picked up. Churchill, where the terminal elevator had stood idle and full of grain through the war years, exported record amount of grain in 1947, 1948 and 1949. The Pacific ports of Vancouver & Prince Rupert became much busier with the close of the War in the Pacific.

In 1947, new grades were established for soft white spring wheat and mustard seed. The grades were commercial grades and this route was probably taken because the process of amending the Act to include them in statutory grades was too time consuming.

The establishment of new grades for rapeseed, soybeans, sunflower seeds and mustard illustrates the diversification of western agriculture that was beginning in those years. Gradually, new crops were being added to the traditional wheat, oats, barley, rye and flaxseed. This necessitated new knowledge for inspectors.

In the fall of 1948 unlicensed varieties began to find their way into the system. American varieties like Mida, Premier, Rival and Cadet and the unlicensed Canadian variety, Red Thatcher were being grown in Western Canada. These were attractive to farmers because of high yields, but their end use quality was very low. An editorial in the Manitoba Cooperator (Oct. 7/48) described the problem quite well.

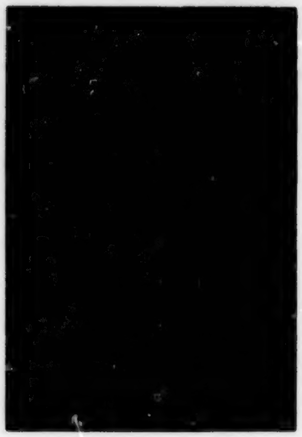
> A farmer who grows unlicensed varieties despite the yields that may be obtained is not only losing financially, due to the necessity of degrading the variety, but is in most instances unwittingly jeapordizing the long standing reputation of Canada Wheat throughout the world.

None of the unlicensed wheat graded higher than No. 3 and Board employees did their best to spread information about the poor quality. The Cooperator ran a series of reports in

J.D. Fraser, Chief Inspector, 1925-1941.

E.B. Ramsay, Chief Commissioner, 1929-1941.

Dr. W. Geddes, Chief Chemist, 1933-1938.



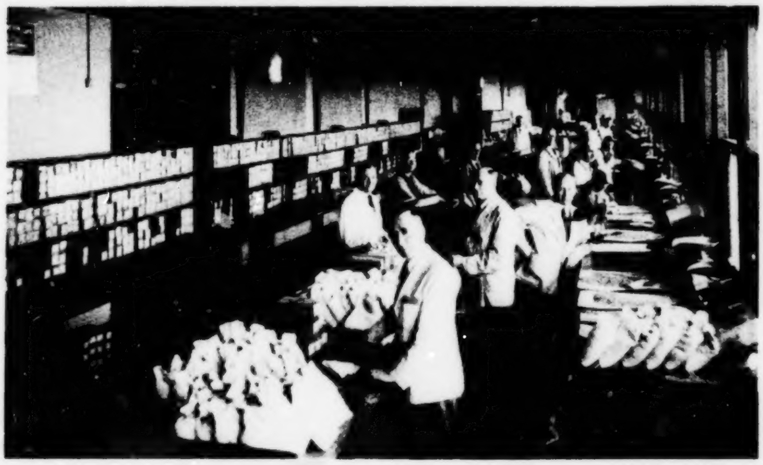
J. Rayner, Secretary to the Board, 1930-1950, Assistant Commissioner for Manitoba, 1950-1959.

Grain Research Laboratory staff in the mid 1930's. Front row, l. to r., Fisher, Angus, Geddes, Aitkens, Snyder. Back row, Waugh, unknown, Capewell, Sibbitt, Guyot, Levi, unknown, Eva, Binnington.

Board of Grain Commissioners curling, 1938. Front row, l. to r. unknown, J. Cuddy, H. Astwood, L.R. Stanford, J. Pilling, T.J. Harrison, J Rayner, F. Filteau, unknown. 2nd row, W. Eva, J. Forsythe, unknown, unknown, W. Beck, unknown, H. Johnson, G. Timbers, D. Ross 3rd row, Guyot, unknown, A. Nelson, unknown, Sandy McKay, F. Stevens, rest are unknown.

Winnipeg Grain Inspectors, c. 1936. Front row, l. to r., C. Owen, H. Temple, G. Timbers, unknown, W. Beck, J. Forsythe. Back row, unknown, D. Ross, unknown, unknown, S. Leask, C. Finnen, H. White, Bo. Forrester, last three unknown.

Deputy Inspectors, Winnipeg, c. 1936. Front row, l. to r., unknown, J. McLaughlin, M. Lewis, W. Parkinson, G. McLeod. Back row, T. Bunn, unknown, G. Killeen, unknown, unknown, C. Lewis, C. Hammond.



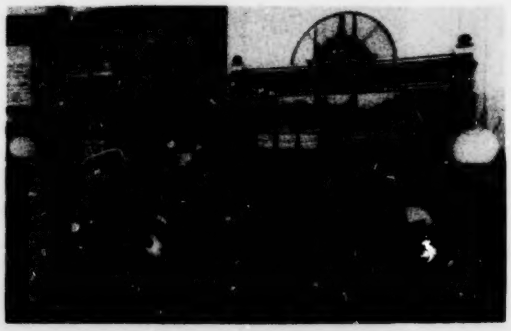
Eleventh floor grading room in the Grain Exchange Building, Winnipeg, 1936.

S.M. Capon, Chief Weighmaster, 1929-1955.

F.S. Ludlum, Chief Inspector, 1941-1949.

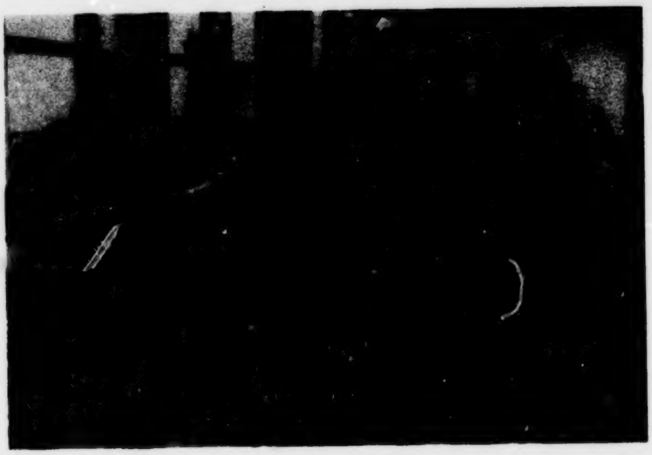
D.G. Mackenzie, Chief Commissioner, 1942-1956.

Curlers in the 1940's. L. to r. Cliff Finnen, Fred Reader, Jim Forsythe, George Timbers.



Board display booth at the International Bread Exhibition, Bologna, Italy, June and July, 1932. The booth was manned by Dr. Birchard.

Samples which will be used in establishing the standard samples for the different grades of grain are received in the sample room — 1960's.



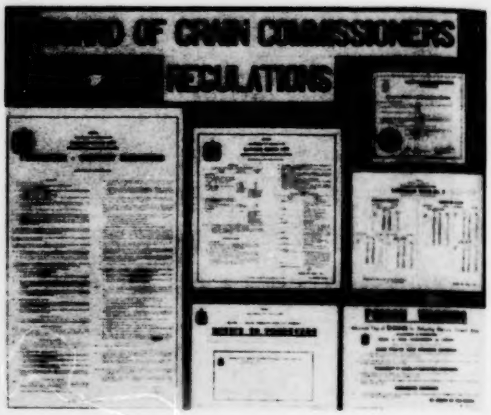
A meeting of the Western Grain Standards Committee in the early 1950's. Decisions of the committee are made on the basis of majority vote.

Inspectors Bill Storrie and George Killeen inspecting grain, 1953.

Display at the Brandon Winter Fair around 1950. Left M. Ainslie, right C. Finnen.

Board Employee taking a sample of grain during ship loading — early 1950's.

Automatic sampling machines have now virtually replaced manual sampling — 1950's.

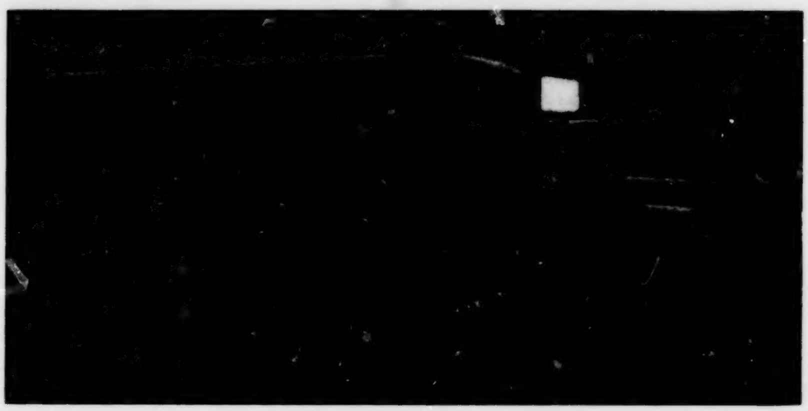


According to the Canada Grain Act, certain documents must be in clear view in every country elevator. This set is from 1963 and includes the elevator license in the upper right hand corner.

Scale platform in a country elevator of the 1950's.

alk about
protein!

Van which was used for exhibits in the 1960's. Left, W.S. Fraser, right Peter Edwards.



The Board's travelling exhibit, in use in the 1950's.

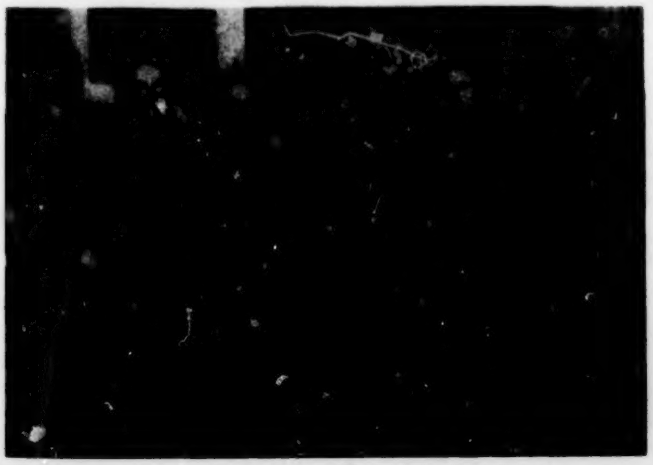
25 year employees of the Inspection, Weighing and Registration branches in Vancouver, 1955. Front row, l. to r. H. Britton, W. Armstrong, S. Denney, C.E. Robertson, H. McArthur, H.F. Fowler, R. Lang, C. Gowe. Second row, D.G. Mackenzie (Chief Commissioner), G. Langford, R. Mckenzie, F. Warren, R. Battensby, G. McGrath, S. Lopston (Commissioner), W.J. McLeod (Board Secretary). Third row, C.E. Matheson, A. MacDonald, R. Mains, C.W. Lewis, H.L. Harper, J.S. Wright, J.W. Dunbar.

J. Rayner's retirement, 1959. L. to r. W.J. McLeod (Secretary 1950-1967), G.N. McConnell (Chief Commissioner 1961-62), R.W. Milner (Chief Commissioner 1956-1960), J. Rayner, S. Lopston (Commissioner 1955-1965).

A.F. Dollery's retirement. L. to r. C. Finnen, unknown, unknown, A.F. Dollery, J. Conacher, C. Hammond (Chief Inspector 1973-74), M. Ainslie (Chief Inspector 1965-1973), C. Owen.

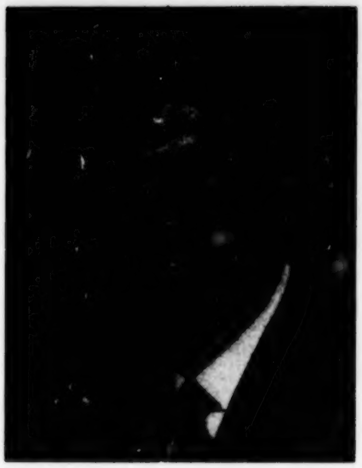
T.R. Aitken's retirement, 1962. Front of table, l. to r. Mary Kowcun, Mrs. R. Kilborn, Addie Armstrong, Bea Cumming, Donna Cowberd. Behind table, Hazel Robertson, Nancy Nishibata, Jean McGill, Margaret Webster, T.R. Aitken (standing).

The Board in 1965. C.L. Shuttleworth (Commissioner 1965-1977), F. Hamilton (Chief Commissioner 1962-1971), A.V. Svoboda (Commissioner 1961-1970).



1960 Board office staff. Back row, l. to r. W.J. McLeod, S. Lopston, G. Gibson, G.N. McConnell. Front row, M. Henry, P. Campbell, J. Fletcher, A. Masters, W.S. Fraser.

Chief Chemist G.N. Irvine explains a point to J.J. Green, Minister of Agriculture. L. to r. E. Mydlo, J.J. Green, G.N. Irvine, unknown.



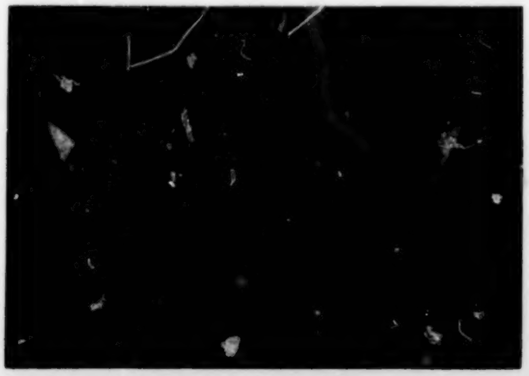
V.G. Martens, who began working in the laboratory during the second World War served as Board Secretary 1967-1970. He then became the founding Director of the Canadian International Grains Institute.

25th Anniversary of the Prairie Section No. 14 of the American Association of Cereal Chemists, December 1964. Charter members, l. to r. A.W. Alcock, unknown, I. Levi, unknown, W.O.S. Meredith, unknown, Campbell, W. Eva, J.A. Anderson, T.R. Aitken.

E.E. Baxter, Chief Statistician, 1950-1972, Executive Director of the Canadian Grain Commission, 1972-1981.

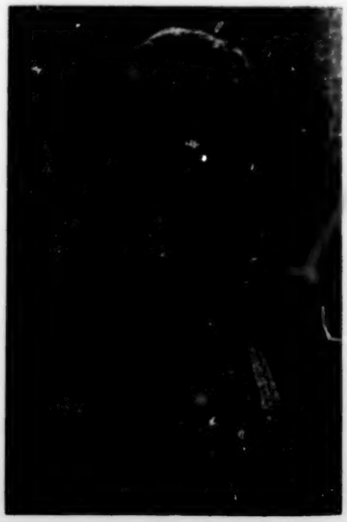
A. Schaen, Chief Inspector, 1974-1977.

The Commission in 1971, l. to r. H.D. Pound (Chief Commissioner 1971-1986), C. Shuttleworth, F. Hetland (Commissioner 1971-1975).



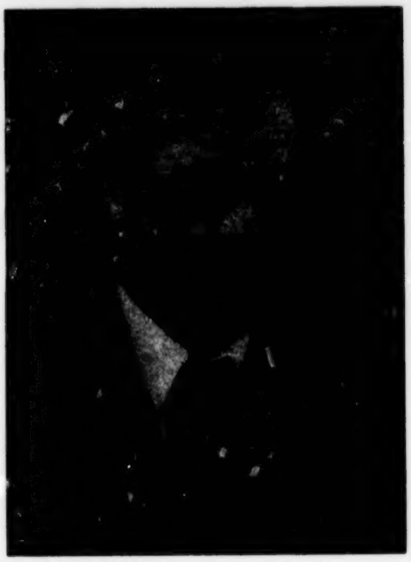
The Commission in 1978. G.G. Leith (Commissioner 1975-1986, Chief Commissioner 1986-), H.D. Pound, R.H. Harland (Commissioner 1977-1981).

The Canadian Grain Commission Building, opened in 1973.

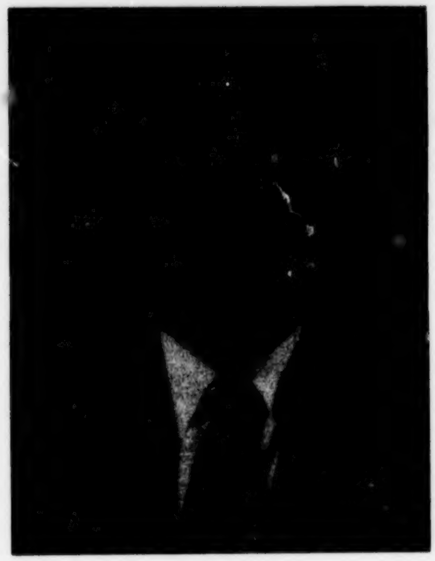


Dr. V.E. Candlish, the first woman Grain Commissioner, 1981-1986.

G.G. Leith, Chief Commissioner, 1986- .



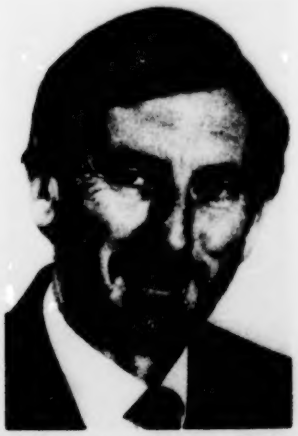
R. Groundwater (Commissioner 1986-).



R. Klassen (Commissioner, 1986-).

W.J. O'Connor, Executive Director, 1981- .

H. Fast, Chief Inspector, 1977- .



K.H. Tipples, Director - Grain Research Lab. 1979- .

D. Kennedy, Director - Economics and Statistics Division, 1981-

S. Kasner, Director - Weighing Division, 1985-

The Western Grain Standards Committee, 1985. *Standing, l. to r. J.K. MacDonald, W.K. Roth, D. Dorrell, D.A. Silk, F.M. Hetland, T.M. Milroy, E. von Graevenitz, L.J. Larsen, R.C. Schmitt, M.D. Wiens, C.C. Pitura, K. Getz, T. Harvie, S.H. Restall, A.E. Cantin, J. van Loon, H. Fast, W. Copper, H. McEwean, Dr. K.H. Tipples. Seated, G.M. Findlay, P. Edwards, R. Popowich (Recording Secretary), H.D. Pound, D.T. Sager, L. Mercer.*

early 1949, for example, on milling and baking tests done on the various wheats by the Grain Research Laboratory.

During the War, when cars were scarce and a lot of feed grain was shipped directly to Eastern Canada, minimum loads were raised and it was difficult to get a sample by probing. After the war, load levels were re-established and there were requests from the Feed Administration that grade and dockage be established at the primary inspection. There was no opportunity for reinspection when the grain was delivered in the east and ungraded grain could lead to disputes. The Board was thus caught in a squeeze. In April, 1949 the Inspection Division was instructed not even to sample cars billed directly from prairie ports to eastern Canada that were loaded too high. "While certain shippers protested this ruling, the Board is of the opinion that it is in the best interests of the shipper and consumer." (1949 p.7).

There were a great many retirements from inspection at the end of the 1940's. These were all men with 40 years service so they included many of those who had been hired in the expansion of the Inspection department around 1912. William Closs, the chief inspector at the lakehead was given the MBE when he retired for his contributions to maintaining the reputation of Canadian wheat. In 1948 F.S. Ludlum, Chief Inspector since 1941 and on the staff since 1907, retired. He was succeeded by A.F. Dollery.

Throughout this period, the wheat pools continued to be very supportive of the Board and the grading systems. In February 23, 1950 the Manitoba Cooperator reprinted an article from the British Miller which praised the quality of Canadian grains and the grading system which safeguarded that quality. The system, the writer said, kept inferior varieties at a minimum by only allowing grains with good end use qualities into the higher grades.

"...the farmer who grows unapproved varieties knows he cannot hope to recieve top price for his crop, regardless of how good it is otherwise."

The crop of 1950 was taken off in very wet conditions and frost damage was widespread. This led to widespread protests on the prairies about the grading system and the price spreads between grades because of frost damage. The Saskatchewan Farmers Union and the Farmers Union of Alberta petitioned the federal cabinet. They asked for changes in the grading system which would allow for grain which though frost damaged, still produced good flour and bread.

The Grain Research Laboratory published reports in the press explaining that frost damage did impair the end use quality of the grain. At the Standards Committee Meeting in October the point was made again.

The Manitoba Cooperator printed a favorable editorial at the height of the controversy. The writer said:

> Despite their dissappointment over the grading of this year's crop, the farmers in Western Canada cannot afford to undermine the confidence in Canada's grain standard in future years. (Sept. 28, 1950)

He contrasted this situation to that in Australia, where there had not been as much progress "owing to the lack of government support and the absence of any uniform grading system."

Protein grading was again an issue briefly in 1950. At the Standards Committee meeting that year Dr. Anderson spoke on protein grading. He said it might be used in one of two ways. The first method would be the payment of premiums for high protein wheat in a sample market situation. He then discounted this method because it was not compatible with the Canadian system of bulk shipping and selling on a Certificate Final.

The second option was the setting of a protein content percentage for each grade, in the same way a bushel weight was specified. On the whole, this idea would work to the disadvantage of producers by introducing another degrading factor — No farmer would gain a grade because his wheat was high in protein, but a certain number would lose a grade because their wheat did not meet the standard of protein content. (MC Nov. 2/50 p. 11).

At the same meeting, Commissioner MacKenzie put the brakes on the idea of protein grading. He said it had taken many years to build confidence in the Canadian system and went on to add:

> We shall have to be very sure of our ground before proposals can be seriously put forward for making changes in the present system that might undermine existing confidence in it." (M.C. Nov. 2/50 p. 11).

He did however recognize the importance of the problem and he emphasized that the Board supported the research of the Laboratory.

The harvest of 1951, like that of the previous year, was very wet and a large proportion of the crop graded tough and damp. Close to 20% of all red spring wheat graded as either tough or damp and in the case of durum wheat the proportion was as high as 45%. The Inspection Department was responsible for supervising grain drying in the terminal elevators and extra staff had to be put on because of the unusually high volume of drying.

The harvest of 1952 produced a bumper crop and one taken off in dry conditions. That year over 400,000 cars of grains and oilseeds were inspected. For the remainder of the 1950's the crops continued to be large. In 1954 there was widespread rust and in many years there was frost damage. The main problem of the decade — lack of markets leading to a plugged elevator system — was not really an inspection problem.

The harvest of 1952 produced a bumper crop. The only grading problem resulted from split and cracked kernels which were damaged by improperly adjusted combines. Notices in the newspaper corrected this problem. The middle 1950's saw slightly smaller crops and quite widespread rust damage, especially in the fall of 1954. With the exception of 1958, the later 1950's were plagued by wet harvests and early frost. In 1959 there was a great deal of tough and damp grain and inspection staff were kept busy supervising drying operations in the terminals.

The later 1950's saw a number of changes in the Canadian grain industry which were reflected in changes in the Inspection Department. During the 1950's wheat made up a slightly lower percentage of the total exports of grains and oilseeds than it had before. Other crops, especially barley and flaxseed, were correspondingly more important. Rapeseed and domestic mustard seed became increasingly important at this time. The size of the rapeseed crop would continue to grow year after year and by the mid 1960's it surpassed rye and oats as a percentage of the total exports.

This resulted in grade changes and in some reorganization of the work of the department. As of 1962 the mustard grades were changed from commercial to statutory grades. The statutory grades for rapeseed were increased in number from two to three and the grades were given more specific definitions.

The inspection of mustard brought with it a complication that could not be solved by visual examinaton. The determination of the percentage of wild mustard seed could only be done by a laboratory test. At first the Plant Products division of Agriculture Canada made these determinations and issued a Seed Analysis Certificate which went with the grade certificate. By 1964 Inspection's training officer was authorized to do the analyses and to train inspection staff in the procedure.

Barley grades were also revised at this time. At the Standards Committee meeting in October 1959 two problems related to malting barley were discussed and it was requested that further investigations be done. Large quantities of malting barley were being degraded to feed because of peeled and broken kernels which were damaged during handling in the terminals. A second problem was that a proportion of Canadian malting barley was not acceptable to maltsters because the kernels were too small.

Changes in the grade specifications were introduced which increased the allowable proportion of broken kernels in the malting grades and which specified the size of the kernels needed to qualify for the grades. These changes came into effect on August 1, 1960 and greatly reduced the amount of degraded barley. Barley breeders were alerted to the need for less fragile malting varieties.

To cope with these changes and the introduction of many new varieties the Inspection Department instituted a staff training program and a series of training publications. Beginning in 1959 a senior inspector was placed in charge of the staff training program. He was to do training himself and to coordinate the training programs of senior inspectors at the various offices across the country.

In 1960 the Division published "Identification of Barley and Wheat Varieties by Kernel Characteristics." The next year saw the introduction of the Grain Inspector's Manual and the first edition of the Official Canadian Grain Grading Guide. These replaced a huge collection of circulars that had been isssued over the previous 30 years. The guide was immediately in great demand in Canada and abroad and hundreds of copies were printed. Two supplements to the Inspector's Manual, "Automatic Grain Samplers" and "Stored Grain Pests" also proved to be "best sellers" in Canada and in countries that purchased Canadian grain.

Staff training was centred around a set of yearly examinations, comprised of a written exam, a varietal identification test and a grading test. Those who passed received a certificate "...in which they may take real pride, because these are all very real tests of skill and knowledge." (AR 1961 p. 47). Writing in 1963, Chief Inspector Conacher gave the raison d'être of the training program:

> 1963 AR p. 47.
> "Canadian grain inspectors are required to be more skilled than ever in the past. Identification of new varieties by kernel characteristics, which was a minor factor in grading a generation ago, is extremely important as more and more new varieties are introduced. More refined grades of rapeseed and domestic mustard seed require skills that were once confined to laboratories but were virtually unknown in inspection office. More refined equipment requires more highly trained personnel. The training that is required must be obtained on the job; no educational institution provides it."

Perhaps the most important change in the inspection process at this time was the discontinuation of primary inspection at Winnipeg, Edmonton and Calgary. After August 1, 1958, cars were probed at these locations only if it were requested by the shipper. This decision was taken for very practical reasons — the majority of cars were loaded almost to the roof, so that it was impossible for the samplers to get into the car to do their work. In part this was due to the fact that the newer larger boxcars coming into use were of stronger construction and could hold much more grain.

This change lead naturally to other alterations in the system. Beginning in 1960 automatic samplers were tested and installed in some terminals to take samples as cars were unloaded. These were soon standard equipment. With the ends of sampling and grading at interior points, the grade assigned to a carload in the country was the grade that was used to sort that car at the terminal rail yards. Under the old system the grades were assigned in Winnipeg, Calgary or Edmonton and then mailed to the terminals where the inspection staff tagged the cars. Now tags showing the grade were attached to the car at the country elevator.

In 1963 the primary inspection service was reduced once again. The huge increase in exports which occurred that year because of the first major grain sale to Russia, put tremendous pressure on the Inspection staff. Inspectors had to be sent from Winnipeg, Edmonton and Calgary to the lakehead and Vancouver where massive shipments of grain were being graded and loaded. The only way to free the staff was to reduce the number of primary inspections.

This was done by instituting a $1.00 charge for the service. This reduced the number of such inspections to less than 10% of the total number of cars. Staff were released for work in the terminals and the railroads found that the movement of grain cars was speeded up significantly.

The opening of the St. Lawrence Seaway brought about changes in the work of the Inspection Division. The construction of large terminal elevators on the lower St. Lawrence — the first one being opened in Baie Comeau in 1959 — meant that Inspectors had to be stationed there. United States grain was also passing through these elevators, so USDA grain inspectors were also stationed there and worked alongside the Canadians. There was good cooperation from the beginning. The Canadian service did all the sampling, charging the Americans a fee for this service. The Canadian inspectors benefited from contacts with the Americans in a number of ways. They adopted a type of indoor lighting, called the Toledo light, which had been developed by the USDA inspectors in Toledo. Conacher also consulted with the chief inspector in Montana — a recognized expert in grading mustard seed — when that crop began to occupy a more important place in Canadian exports.

The Inspection Division had thus shown itself able to change in response to external change in the grain trade. This adaptability was to remain a trait of the Division through the remainder of the 1960's and the 1970's whenever more fundamental changes took place.

In January 1965 M.S. Conacher resigned as chief inspector and was replaced by M.M. Ainslie. Conacher then assumed the position of special advisor to the Board. His job was to review the entire grain handling and grading system and to write a report. His review took two years to complete. He was assisted by a committee composed of Board staff, grain trade representatives and Wheat Board staff. The report and the submissions made during the review were important resource material for the committee which prepared the revision of the Grain Act between 1968 and 1970.

The bulk of Conacher's recommendations had to do with grade changes. In the case of most grains and oilseeds, he recommended a reduction in the number of grades. He suggested the elimination of a number of grades such as No. 1 Manitoba Hard for wheat and No. 1 C.W. rye, which were almost never used because grain seldom qualified for inclusion.

Various other changes were suggested to bring the grading system more in line with reality. Conacher did not envisage the change the 1970 Act would make in placing the statutory grades in the regulations to the Act — he continued to speak of statutory grades and commercial grades. He recommended using the commercial grades, which could be changed without a parliamentary amendment to the Act, to give the system some flexibility.

The 1970 revision of the Act introduced two major changes in the grading system and thus to the work of the division. The most important change was that of moving the statutory grades from the Act to the Regulations. This gave the Board and the Grain Standards Committees much greater flexibility in altering grades without first having to seek a formal amendment to the Act. A second historic change was the introduction of protein segregation. Section 22 of the new Act provided the legal basis for this enhancement to the grading system.

CHAPTER 14

WEIGHING 1930-1970

The Weighing Division began the 1930's with a staff of around 270 men, 94 of whom were permanent employees. The Chief Weighmaster, S.M. Capon, presided over an organization that had a wide range of duties, built up over the first 18 years of the Division's existence. Weighing staff inspected all elevator scales in the Western Division, issued certificates and collected fees. This was done on behalf of the inspectors of Weights and Measures and the fees were remitted to the Weights and Measures officials in the various districts on the prairies.

In terminal elevators at the lakehead, on the Pacific Coast, at interior points and at Churchill all scales were inspected twice a year, once in order to issue the Weights & Measures certificate and once on behalf of the Board. Similar inspections of terminal and transfer elevator scales were done in the Eastern Division. Weighing staff also supervised weighing in the terminals and at some flour mills in the western division. In the east staff was employed on a fee basis at 7 ports.

In Winnipeg a crew of between 25 and 35 men worked in the railway yards inspecting boxcars for leaks and broken or missing seals. When the Board received complaints about shortages in weights, carloads of grain or ship cargoes arriving at eastern elevators from the lakehead, the weighing staff became involved. They consulted their records and issued a report to the Board so that the complaint could be dealt with.

The Weighing Department was also responsible for conducting an annual weigh up or audit of all grain in store in public, semi-private and private terminal elevators. The results of this weigh up were sent to the Board and under the new 1930 Act, if there was any overage, the value of that overage was remitted to the Crown. The weigh up also indicated whether or not sufficent grain was held to honor all the outstanding warehouse receipts.

This program of work continued for almost the entire period from 1930 to 1970 and did not begin to change until the late 1960's when the introduction of electronic scales began.

Like all other branches of government in the 1930's the Weighing Division was asked to cut staff in order to reduce expenditures. In 1933 about 25 positions were abolished and service was decreased at some points. The next year, twelve staff retired and were not replaced. To a certain extent, these reductions can be seen as a correction for the large buildup of staff during the busy years of the 1920's. In that decade weighing added over 100 employees to deal with the large export crops. The smaller crops of the 1930's required fewer weigh men. In the reorganization of staff in the years between 1936 and 1938, Weighing Division experienced some changes. With the close of the decade, the flow of grain began to quicken again and the problem very quickly became not one of reducing staff but of finding enough competent staff to do the work.

During the 1930's shortages in carloads of grain were not as large as they had been previously. S.M. Capon attributed this to the improved quality of the boxcars in use and better coopering of grain doors. Losses from leakage continued to be a concern, however, as did pilferage which was widespread during the hungry '30's in spite of a number of convictions in the courts.

Weigh ups were done annually throughout the 1930's. Up to 1936 the audit proved more and more difficult each year because of the continuous build up of grain in storage in the terminals. In 1934, for example, over 80,000,000 bushels of grain were weighed. The fact that overages worth only $47.50 were discovered proves the Board's supervision was effectively preventing problems. During 1936 the Wheat Board sold off a good deal of the accumulated grain and until 1940 the audit was carried out with very little difficulty.

The War brought a new set of problems, including staff shortages. A number of Weighing employees went on leave to join the forces. It was very difficult to replace them. Because of the special storage annexes that were erected at the lakehead to contain the vast surpluses of grain, more and not fewer weighmen were needed. Weighing into and out of the special annexes was very time consuming. In 1943, additional staff were engaged for this work. Many men stayed on after retirement age to fill in for those who were in the service.

As stores of grain, denied an export outlet, began to pile up at the terminal points after 1940, the audit became increasingly difficult. In 1940 over 90,000,000 bushels of grain were weighed in the Western Division. The next year the situation was much worse and for the first time the contents of many bins had to be estimated because it was simply impossible to weigh them. In cases like this, the elevator company was required, by order in council, to post an additional 15% in bond money. In 1943 and 1945 it was possible to do a complete audit at the lakehead but not at other points. Between the end of the war and 1951 the terminals were not as full and regular weighovers were performed. Throughout the period only small overages weere found and charges assessed against the offending companies never amounted to more than $2500 in total.

The Board received the usual number of complaints about shortages in carlot shipments and cargoes loaded into lake boats at the lakehead during the 1940's. In 1949 there was an increase in complaints about cargoes unloaded at eastern elevators. The problem was bad enough to prompt the Board to send a special weighing crew east to tour the transfer elevators. It was discovered that at certain elevators the holds of the ships were not completely cleaned out and broken grain left in the hold was not recorded in the total weight of the cargo. In 1950 two extra weighmen were added to the staff at the lakehead. Two particular eastern elevators were singled out for special inspections. Faulty unloading equipment was discovered and repaired. Excessive overages were found at one elevator and these were used to settle the claims of shippers for shortages.

The problem persisted into 1951 and 1952 and special audits were conducted which disclosed overages in two elevators which resulted in charges of $3,285.05 being assessed. This was a very large amount when compared to normal overages in the rest of the country. In 1952 two elevator managers in whose plants problems had occurred were interviewed by Board staff. After 1952 the number of complaints returned to a normal, acceptable level.

The 1950's were years of large carryovers and this presented problems for weighing staff charged with making the yearly audits. In 1950 the Act was amended to allow the Board to defer weighovers from one crop year to the next. The amendment stipulated, however,that no more than 22 months could elapse between audits. Ths new power to defer was used throughout the 1950's and 1960's. In the early 1950's when the system was particularly congested, the Transport Controller used his authority under the Emergency Powers Act to defer some weighovers beyond the 22 month period.

During the early 1950's the staff shortage problems experienced which had begun during the war continued. There were a large number of retirements in those years, including M.C. Capon who left the division in 1955 after 42 years of service, 26 of them as Chief Weighmaster. T.J. Manson replaced Mr. Capon. The recruitment of new employees was made difficult by the wages paid, which were lower than those received by terminal company employees. Trackmen often left to work for grain companies a few months after being hired. (1951 p. 47).

Weighing staff are responsible for inspecting the loading and unloading structures of the terminals as well as the scales. They were busy in the 1950's and early 1960's inspecting new dust control systems being installed to prevent explosions. When the St. Lawrence Seaway opened in 1960, ocean going ships berthed at the lakehead for the first time and this triggered more renovations and changes to the loading facilities in the terminals. These additions had to be inspected and approved by Weighing staff.

The most revolutionary innovation of the 1960's from the Weighing Division's point of view was the introduction of semi-automated and automated control systems for scales. In 1965 the Assistant Chief Weighmaster travelled to Texas to look at automated scales in elevators there and report on whether similar equipment should be installed in Canada. In the later 1960's conversion of older manual scales to electronic contol began in Canada. The new terminal opened at Port Cartier in 1969 was the first to have all its scales controlled from a single central panel. The next year a new annex at the lakehead and the new terminal at Vancouver had automated scales. Conversion of manual scales in the older terminals progressed from that time. To keep abreast of these changes the Weighing Division hired a scale technician in 1967.This employee inspected all the converted scales to ensure that they were functioning accurately.

The Division had also instituted a staff training program in 1962, two years after a similar program in Inspection was begun. All promotions were to be made on the basis of the results of written and oral examinations. A new version of the section's rules and regulations, called the Grain Weighing Manual was produced in 1963 and revised in 1967.

In 1967 and 1968 a safety committee from the Board inspected the terminals and made recommendations about improving the safety conditions in areas where Board employees were working. Most elevator managers were cooperative in upgrading lighting, dust control systems, and signals. There were two basic reasons for this concern with safety. The first was that between 1968 and 1970 all Board employees were brought under collective agreements and it was necessary to achieve some uniformity in the working conditions of people doing the same jobs in different locations. Also, all terminals were soon to be governed by the Canada Labor (Safety) Code.

In 1970, H. Britton who had been Chief Weighmaster for a decade and had presided over the beginnings of major changes in the divisions, retired. He was succeeded for a short time by J.A. Morrison who in turn retired in 1971. The Board then refrained from making a new appointment until a study of the Division had been completed. J.J. Harris was retained to do a management study of the Weighing Division and recommend changes.

CHAPTER 15

STATISTICS BRANCH 1930-1970

By 1930, E.A. Ursell and his staff were responsible for a number of basic functions and this responsibility continued, with a number of additions, for the next forty years. Lake freight rates were under the control of the Board under the Inland Water Freight Rates Act of 1923. The Branch's role in this was to calculate weighted monthly average rates for the carriage of grain on the various lake routes. This information was gathered from copies of charters from grain shipments, which had to be filed with the Branch. The information allowed the Board to monitor the rates and determine when they needed to be changed.

The Branch also gathered statistics on the production of grain and its movement through the system to export position and abroad. The Branch collected and kept on file publications which gave grain prices in various markets. Provision for this service to the trade had been in the Act since 1900. A permanent record of the daily quotations for cash and futures prices at the principal grain markets was also maintained. The 1930 revision to the Canada Grain Act added two new duties to these already performed by the Statistician and his staff First, they were to ensure that all public and semi public elevators in the Western Division had sufficient fire insurance. Copies of fire insurance policies were filed with the Board. Statistics Branch monitored the quantities of grain in the various elevators and calculated its value. If the amount of insurance carried became inadequate due to the fluctuation in the amount and value of grain, the company in question was notified and additional coverage required.

The other duty had to do with the weighovers. The Act now required that the value of overages discovered in the weighover of the contents of terminal elevators should be paid to the Crown. The work of preparing statements detailing the overages and shortages as well as reports of the results of the weighovers fell to the Statistics Branch. The chief Statistician, E.A. Ursell, was allowed to hire given two additional clerks to look after this work.

Ursell devoted a good deal of energy during the 1930's to establishing the final destination of Canadian export grain. In 1933, for the first time, he published a statement giving the final destination of grain exports. A conference on agricultural statistics held in Ottawa in the spring of 1936 identified this as a major concern. Large quantities of Canadian grain were shipped to ports like Antwerp, Rotterdam and Hamburg and then unloaded for trans-shipment to various European countries. At the conference, L.D. Wilgress, at that time head of the Commercial Intelligence Service, undertook to have the various Trade Commissioners in Europe file weekly reports about movements of Canadian grain.

The next year the Customs Division of National Revenue began cooperating with the Statistics Branch by sending them the records of destinations as given by the shippers. Statistics reciprocated by sending Customs a record of the actual final destination. This information enabled the Customs officials to detect any underpayment of duties.

Another concern during the 1930's was securing more detailed information about grain exported through U.S. ports. In 1936 a delegation from the Board, consisting of Commissioner Hamilton, John Rayner, the Secretary and E.A. Ursell, went to New York to negotiate with officials of the New York Produce Exchange. As a result of this visit, the Exchange began to supply Ursell with reports on each parcel of Canadian grain loaded at seaboard points.

In 1939 a preferential tariff on wheat shipped to Britain from Commonwealth countries ended and as a result there was some extra movement of Canadian grain through U.S. ports. Ursell was able to get weekly reports of movements of Canadian grain from the ports of Baltimore, New York, Albany, Philadelphia and Boston as well as from the New York Produce Exchange. This was an improvement over the monthly reports that had been sent previously.

The Statistics Branch, like all the other divisions of the Board, suffered some staff cuts in the early 1930's as the government attempted to reduce expenditures. In 1933 Ursell lost 3 clerks and was forced to rearrange the workload.

In October 1936 an important addition was made to the Branch's list of publications. In that year the Winnipeg Grain Exchange agreed to drop its 40 year old publication, the weekly visible supply statements, on the understanding that Statistics would publish a similar report. This was the origin of the Canadian Grain Position bulletin, a publication in demand around the world.

There were some logistical problems in launching the new publication. Both the Winnipeg Grain Exchange and the New York Produce Exchange wanted the supply figures on Monday. Figures sent to the lakehead from American points did not arrive until Tuesday. The solution was to have the statistics telegraphed to the Branch's office in Fort William, where the necessary calculations were done. Then they were telegraphed on to Winnipeg and New York before the end of the business day on Monday. Statistics were also telegraphed to Chicago and to the press and some firms in Winnipeg.

The beginning of the 1940's brought no real changes for the Branch. Some staff went on leave to join the armed forces. The changed conditions in the grain industry brought on by the war — the huge carryovers and the lack of markets -- did not greatly alter the work of the Branch.

In 1945 Ursell retired and was succeeded for a brief period by A.V. McMath. The position of Chief Statistician was reclassified and the upgrading attracted the first university-trained professional to the post. A.T. Calder was appointed in 1946; he had worked as accountant at the Saskatoon elevator in the '30s. He had a Master of Commerce degree and had worked in Ottawa with the Department of Finance and then with the Wheat and Grain Division of the Department of Trade and Commerce as a Statistician.

In 1946 a number of key former staff returned from the forces and Calder could start the modernization of the Branch. New electric adders replaced the old hand-driven calculators and new forms and systems speeded the tabulation and publication of the mass of statistics that flowed from the sharply increased movement of grain that year.

In 1947 another university-trained professional joined the staff. E. Baxter, who had a Master's degree in Economics, had been with the Economic Research Branch of C.D. Howe's Reconstruction Department in Ottawa following service in the armed forces during the war.

The Branch centred its attention on the format and content of the various publications and the timeliness of their release. Meetings were held with the Wheat Board and the Bureau of Statistics in both Ottawa and Fort William to better correlate the different grain publications and eliminate duplication. The Canadian Grain Exports bulletin monthly and annual issues were redesigned and expanded to meet international as well as Canadian needs.

In 1950 Calder left to succeed Rayner as Secretary and Baxter took over as Chief Statistician. One of his initial tasks was an assessment of the feasibility of using electronic data processing equipment (punched cards systems). The study indicated that the workload at Fort william did not justify the expenditure and this soon led to the transfer of the Branch to Winnipeg, where such equipment would have much wider use. In the meantime the Branch's duties were expanded to include a new control audit as part of the terminal elevator weighover summaries.

In January of 1953 Baxter and about half of the staff moved to Winnipeg. The remaining staff either moved to other government offices at the lakehead or retired.

In Winnipeg the Branch moved quickly to put into operation a basic I.B.M. electronic punch card system. They were aided by the E.D.P. Division of the Canadian Wheat Board in staffing and setting up the electronic programs. This was the start of the cooperative work of the two division chiefs — Baxter and Head — as they worked to develop the wider and integrated application of electronic accounting and communication throughout the industry.

Internally, the Branch adapted the new equipment to a service operation for the inspection and weighing branches, a step which eventually led to the development of combined clerical offices in Winnipeg, Fort William, Vancouver and Montréal. The combination of the Winnipeg location and the new equipment enabled the Branch to improve its service to the industry through direct contact with the principal grain company head offices, the Wheat Board and the Grain Exchange. This program worked to the advantage of both the trade and the Board of Grain Commissioners by allowing access to better and more easily understood information.

On January 1, 1959 the Licensing Division of the Board became part of the Statistics Branch. Almost immediately the licensing records were adapted to machine accounting techniques. In August of 1960 Registration was also brought under Statistics branch. Again, the work of registering, and registering for cancellation of warehouse receipts, was mechanized. Negotiations were begun to integrate the work of the Board, the Wheat Board and the grain trade in the area of registration.

It can be seen very clearly from these developments that the introduction of the new technology of the accounting and punch card machines greatly encouraged the rationalization of the work of the Board. The machines imposed a logic on the work, grouping similar functions together in one department. This process continued in the early 1960's as the clerical staff attached to Weighing and Inspection Divisions were transferred to Statistics, first in Vancouver and then in Fort William and Montreal. This sort of efficiency in organization pleased the commissioners of the Glassco Royal Commission and they declared statistics to be an effective unit.

The amalgamation of clerical staff under the Branch was parallelled by an amalgamation of the statistics reporting functions of the other branches. Previously, Inspection, Weighing, Registration and Licensing had all published statistics reports of their work. Now Statistics Branch would act as the statistics and primary records agency of these other divisions. At the same time, in the words of E.E. Baxter, the Branch had become "the principal source of grain storage and handling statistics" in Canada. The Canadian Wheat Board had withdrawn from the issuing of grain bulletins and private trade publications such as those issued by Sanford Evans also ceased.

Economic research was a service first developed by the Branch during the 1950's. The first research statistician employed was A. Kubicek. He went to work at the Wheat Board in 1960 and H. Swalweil was hired to take his place. One of the subjects on which research was done in the early 1960's was the effect of the opening of the St. Lawrence Seaway. The Branch also supplied statistical data to the Board to aid the Commissioners and to various committees and royal commissions like the Boxcar Inquiry Commission and the Glassco Royal Commission.

Further at rationalization of statistical publications continued in the 1960's. In 1969 the Branch assumed responsibility for publication of the Grain Statistics Weekly, previously a publication of the Dominion Bureau of Statistics.

As the department responsible for licensing, Statistics had inherited the job of collecting the levy for the Prairie Farm Assistance Act. In the early 1960's when first Manitoba and then Saskatchewan inaugurated provincial crop insurance plans, it was no longer necessary to collect the levy on acres covered by those plans. The 1970 revision of the Grain Act provided for the repeal of the Assistance Act and the disposition of the funds.

Another new problem for licensing was the closing of elevators on abandoned rail lines. The abandonments began in 1960/61 and by the next year over 50 elevators had been dismantled or moved to other locations on a rail line. Special "abandoned elevator licenses" were issued for these structures while they still held grain. The licenses were cancelled once the bins were empty.

There were some changes, too, in the Registration section's work with the expansion of the production of rapeseed. In 1963, the Winnipeg Grain Exchange began to trade rapeseed futures. Registration began offering a new service so that the Winnipeg representatives of Vancouver based traders could register warehouse receipts for rapeseed unloaded in Vancouver.

In the Eastern Division, registrations and cancellations were reduced in numbers at this time because more grain was shipped directly down the Seaway without moving through transfer elevators.

The long process of rationalizing the documentation produced by the grain trade saw some important advances in the 1960'S. In 1965, after a feasability study conducted in cooperation with the Management Services Unit of the Department of Agriculture, the Statistics Division purchased a computer. The new equipment enabled the Statistics Division to expand its documentation services to the Canadian Government Elevators. It also brought the objective of an integrated system a step closer. As E.E. Baxter wrote his 1967 report:

> Jointly with the Canadian Wheat Board the Division has endeavored to guide and control the integration of electronic data processing systems in the Canadian grain trade. It is hoped that this leadership will culminate in the establishment of a common machine language and forms design that will facilitate the interchanges of punched cards and other derived reports. (1967 p. 12-13).

The negotiations necessary for this sort of integration were carried on through a committee active since 1963 that studied accounting procedures, records and documents. The parallel computerization of the work of the Wheat Board and the large grain companies was thus carried out in a rational way with the result that all systems were compatible. The computer systems of the two grain boards were interlocked to speed the transfer of data.

In 1967 work was begun on a telecommunications system to link all the terminal elevators in the Western Division. In this way reports of grain movements through the terminals could be received much more quickly than before and the publications and reports of the Statistics Division would be more timely. This allowed an almost immediate evaluation of the types and amounts of grain available — information invaluable to the Wheat Board — and aid the railroads in coordinating the movement of grain.

The first elevator linked with Winnipeg was the terminal at Churchill. The next year the Canadian Government Elevators and the Statistics office at the lakehead were added to the system. The Wheat Board and the head offices of the grain companies and 1968 the Division's Vancouver Office were all linked. Statistics Division began to transmit data for the companies on a fee for service basis. One of the main advantages of the system was that it eliminated the chaos and expense that would have resulted from the duplication of systems.

The new computer and related telecommunications links allowed a major change in the registration procedure. Not only did the Division now register and register for cancellation the warehouse receipts but it actually produced the receipts in the form of machine cards. These cards were provided to grain companies on a fee basis as input to their computer systems.

The Grain Transportation Technical Group — a committee of 12 representing all sections of the grain industry — was formed in 1967. E.E. Baxter was a member. The most important accomplishment of this group was the design of the Block Shipping System. Mr. Baxter chaired special committees of the Group which worked on further computerization of documents and records and on reducing variability of protein content in shipments from Vancouver.

As the 1960's drew to a close, the Division was heavily involved in the work of preparing the Grain Act for revision. E.E. Baxter was a member of the Board Committee which prepared the revision and various economic studies were done to prepare for the changes the new act would precipitate. Specifically, a great deal of statistical analysis was done in preparation for the introduction of protein segregation.

CHAPTER 16

GRAIN RESEARCH LABORATORY 1930 to 1970

The Grain Research Laboratory grew very little during the 1930's and the war years. This period was followed by a very substantial expansion of staff and services from the late 1940's to the end of the 1960's. The laboratory continued its program of services to the Inspection Branch and the Board, while at the same time greatly expanding its role as a research facility.

The role of the Laboratory in the inspection system was enshrined in the 1930 revision of the Act which made the Chief Chemist a member of the Standards Committee and stated that the standard samples could not be set before being subjected to laboratory testing.

The terrible growing conditions of the 1930's made some of the routine work of the laboratory difficult. In 1931, for example, the protein survey was hampered by the drought, as Dr. Birchard reported in this rather chilling line:

> This year it was impossible on account of drought to secure grain for testing from a great number of districts, particularly in Saskatchewan and this explains the numerous blank areas on the survey. (p. 5).

Dr. Birchard, ever an individualist, experienced sometimes stormy relations with both the Asssociate Committee and the Board of Grain Commissioners. (Report of the Associate Committee 1932, p. 5). His last important contribution was made in 1932, the year before his retirement, when he and Aitken went to the International Bread Conference and exhibition in Bologna. They set up a display which demonstrated the quality control work of the Laboratory and promoted the use of Canadian wheat in blends with European wheat. Birchard presented a paper on this subject at a congress held n Rome at the same time. He also visited bakeries in Italy and some countries in northern Europe to demonstrate the benefits of using Canadian wheat in blending. His report of this trip contains a good deal of market intelligence information and some recommendations that will be referred to later.

In July 1933, after twenty years of service, F.J. Birchard retired. For over three months, T.R. Aitken was the acting Chief Chemist and in October Dr. W.F. Geddes was appointed to the job. Geddes had been head of the Department of Agricultural Chemistry at the University of Manitoba and was already familiar with the work of the laboratory, having served as a member of the Associate Committee.

The Grain Research Laboratory's connections with other institutions were greatly strengthened by Dr. Geddes, who was involved in many aspects of cereal chemistry. He was the Secretary of the Associate Committee on Grain Research, Secretary of the Subcommittee on Methods and Chairman of the Subcommittee on Flax Studies. He was given a clerical assistant by the Associate Committee and he wrote in 1934 that the laboratory was "now closely associated with the work of the Associate Committee." (1934 ann. rept. p. 5).

The Laboratory cooperated with the Associate Committee in the testing of promising new varieties of wheat and barley. Staff worked with other institutions, such as the Rust Laboratory and the Kansas State Agricultural College in joint projects. In 1935 Dr. Geddes organized a large scale cooperative test of new Canadian rust resistant varieties. Chemists in Canada, the United States and Britain subjected samples of Thatcher and other wheat to quality tests.

In 1934 a long tradition of educational work began when two graduate students — Harald Johannson and Lois Sellars — were given space in the Laboratory to work on their thesis topics. The increased emphasis on research is demonstrated also by the thirteen journal articles published that year.

The transfer of the Durum Research Laboratory from the University of Manitoba to the Laboratory was another important consequence of Dr. Geddes' arrival. This section, with durum milling and macaroni testing equipment and a spectrophotometer for studying pasta color, had been funded by the Associate Committee and this continued for some time after the move.

To support the regular work of the Laboratory, Geddes installed a dark room and a machine shop, making the organization more self contained. Over the years the machine shop was to play a major role in repairing equipment and developing new equipment.

Services were provided to the other branches of the Board of Grain Commissioners as required. A pamphlet on the operation of the Brown-Duvell moisture tester was prepared. In 1934 a step was taken toward automation when a Hollerith card punching and tabulating machine was purchased to help with the calculations involved with the protein survey. To support the marketing of the new variety Thatcher, quality tests were carried out in the laboratory, a pamphlet on the wheat's quality characteristics was published and Dr. Geddes travelled to Europe with the first trial shipment to assist in its evaluation by millers.

In 1937 the Chief Chemist appeared before the Turgeon Royal Commission to testify on the effect of selection of high protein wheat by Canadian millers on the overall quality of export cargoes.

The research activities of the Laboratory were increased under Dr. Geddes. In 1933 only 3 scientific papers had been published. In 1937 the number had risen to 25.

In November of 1938 Dr. Geddes resigned after a relatively short stay of five years. He went to the University of Minnesota to become Professor of Agricultural Biochemistry. Although his stay was short it was Geddes who moved the Laboratory away from the problems of the past began to develop close working relationships with national and international colleagues. He also laid the foundation for the program of applied research upon which his successors have so ably built.

T.R. Aitken was again acting Chief Chemist between the time of Geddes' departure in November of 1938 and the appointment of Dr. J.A. Anderson in June of 1939. Dr. Anderson had been in charge of the National Research Council's Barley Research Laboratory in Ottawa before coming to Winnipeg and so, like Geddes, he was no stranger to the work of the Laboratory when he arrived.

The outbreak of the war marked the beginning of an hiatus in the development of the Laboratory. The essential programs were maintained — the protein surveys, the quality testing of each crop and of new varieties and the moisture measurement program — but research all but stopped. With many staff in the armed forces or engaged in war work, the Laboratory was functioning with a reduced staff. The percentage of women staff members rose to about 50% during the war as women stepped in to do jobs traditionally done by men.

On the national scene the National Research Council ceased its research on grain in Ottawa, transferring staff to war work. The Council's Malting Laboratory, located at the University of Manitoba and funded by the Council since 1937, was moved to the Grain Research Laboratory in 1942. The council continued to pay the staff of this laboratory until 1946 when the

Board took them over. With the Malting Laboratory came Mr. W.O.S. Meredith who function in a great many capacities in the Laboratory during the war years, working on statistics and the protein survey as well as his barley research work.

During the war large crops and a lack of customers led to vast carryovers of grain. Immense storage annexes were built at the lakehead and at country points to house the excess grain. This presented the laboratory with a unique opportunity to study the effects of long term storage of grain in bulk. An emtomologist, Dr. B.N. Smallman, was also added to the Board's staff to study the control of the various insect pests that became a problem during prolonged storage. Dr. Smallman was given bench space in the laboratory. Insect infestations led to the use of chemicals as fumigants and for the first time the laboratory became involved in testing grain samples for residues of toxic chemicals.

Material shortages plagued the Laboratory during the War. In 1943 a paper shortage forced Dr. Anderson to reduce his annual report by 10 pages. The Laboratory workshop was kept busy manufacturing and repairing instruments and equipment that were not available for purchase. Apparatus was even manufactured for the Chemistry Department at the University of Manitoba.

Dr. Anderson has been described as a developer of people, equipment and ideas. With the end of the war he was able to embark upon a program of development and expansion. In 1945 he presented a long term plan which was approved by the Board. This was eventually to involve a number of enlargements of the Laboratory's physical space and the upgrading of equipment which had been given a low priority during the war. Perhaps most important, Anderson wanted to hire new people and see that they received the training they needed.

By 1948 he had brought the staff back up to full strength. Their training was done either in the Laboratory or at universities while on leave of absence. Dr. G.N. Irvine, who was to succeed Anderson as Chief Chemist, was hired after the war and then given time to complete his PhD. Many others, including Dr. W.O.S. Meredith, Dr. W. Bushuk, Dr. E.J. Bass and Dr. C.J. Dempster earned their doctorates while on leave from the Laboratory in the post war years. The subsequent strength of the Laboratory's reasearch program demonstrated the wisdom of Anderson's policy.

Technical staff were also developed while working at the Laboratory. Anderson had the rare ability to recognize skill and then make it possible for people to put their skills to work. One man who started as a technician in the Laboratory later became secretary of the Board of Grain Commissioners. This was V.G. Martens who was also to be the first director of the Canadian International Grains Institute. Another technician H.E. Rasmussen, helped to design and build a great deal of the equipment used in the laboratory during the 1950's. He later co-founded the Halross Instrument Company where he helped develop the 919 Moisture Meter which is now the standard meter throughout Canada. He ended his career working for Air Canada where he utilized his genius for mechanical engineering to save the corporation millions of dollars.

Research projects being undertaken at the end of the 1940's covered a wide range of topics. Work was being done on the chemical basis of dough elasticity and viscosity and on the diffusion of gases through dough. In the durum area reactions which cause color fading during processing were being analyzed. Worts and compounds which increase viscosity were the subjects occupying the barley section.

In 1951 the harvest was taken off in very wet conditions so that there was a great deal of artificial drying of grain in the months that followed. For the first time, large amounts of grain were dried by producers on the farm. In order to minimize the potential damage to the crop from improper drying, the Laboratory tested all farm dried grain for milling and baking quality. Samples of grain dried in the terminals were also tested and a free service was offered by the laboratory, testing samples of grain to help with the proper adjustment of the driers.

In 1954 Dr. Anderson outlined the five major areas of responsibility of the Laboratory. It was to assess the quality of each new crop and make information available to domestic and foreign customers. It was to keep a record, throughout the crop year, of the quality of all grades of grain in all positions. It was to provide laboratory services to the Inspection Branch and collaborate with other laboratories and plant breeders in the development and testing of new grain varieties. Lastly, it was to serve as the main Canadian centre for research into the quality of cereal grains. He concluded by saying:

> Among these responsibilities the research is the most important because the improvement of all other services depends upon progress in research. (page 7).

The tremendous progress made in the first decade after the War in establishing a strong research program and hiring research scientists to direct it has been continued. The Laboratory is recognized internationally as a leading centre of cereal and oilseeds investigations.

The protein survey of the wheat and barley crops had become, by the mid 1950's, a very sophisticated operation. Samples were taken year round and districts were sampled on the basis of the production of the grain in question. The Kjeldahl laboratory was monitored for accuracy, but also for speed and efficency. The large number of samples being tested — 40,000 to 60,000 a year — required that the staff work as efficiently as possible.

Moisture testing continued to be a concern of the Laboratory. Throughout the 1930's and 1940's the Laboratory had tested dozens of electric moisture meters, searching for an instrument to replace the Brown-Duvell tester. In the 1950's it was concluded that a meter developed by Harold Rasmussen of the the Laboratory was a good as any of those tested and so the Halross 919 meter was placed in some inspection offices for evaluation. By 1959 it had replaced the Brown-Duvell apparatus as the official meter of the Board. It was purchased by the private trade for use in the elevator system.

Although his predecessors had all done some travelling, Dr. Anderson was the first Chief Chemist to make yearly visits to foreign countries to promote the sale of Canadian grains and oilseeds. In addition to traditional markets like the United Kingdom and Western Europe, Anderson travelled to new market areas like China and Indonesia, as the technical expert in delegations made up of Canadian Wheat Board representatives, members of the Board of Grain Commissioners and the Chief Inspector. Research laboratory periodical publications describing in detail the quality of each of the current year's crop of grains and oilseeds were and continue to be invaluable selling aids on such missions.

In the 1950's and the 1960's the National Research Council did four studies of the Laboratory at the request of the Board of Grain Commissioners. These studies were Dr. Anderson's idea and they cost the Board nothing. They were an opportunity for Dr. Anderson and his successor, Dr. Irvine, to report to a group of scientific peers on the work of the Laboratory and suggest future directions. The reports of these committees usually supported the work that was being done and recommended more support and space where it was needed. The recommendations of the review committees spurred a number of additions to space and staff and the addition of new duties to those already performed by the Laboratory.

The 1950's also saw the first of many foreign scientists come to study in the Laboratory. In 1955 two Pakistani students spent a year in Winnipeg on a Colombo Plan scholarship. In 1957 the first of a long series of post doctoral fellowships was awarded by the National Research Council to Professor Hiroshi Matsumoto of Osaka Women's University. He worked in the laboratory from mid 1957 to mid 1958. In the years since many distinguished researchers have followed Dr. Matsumoto, making important contributions to their fields and strengthening the bonds of goodwill between Canada and other countries. It is of interest to note that two of the post doctoral fellows, Dr. K. Tipples, the present Director and Dr. P. Williams, both joined the staff following completion of their fellowship studies.

In 1961 the Laboratory became further involved with the work of the Wheat Board when that Board established its Technical Services and Market Research Department. Dr. Irvine was loaned to the Wheat Board to head the Department. The Wheat Board began to hire grain technical officers who were fluent in various languages and whose job it was to sell Canadian grain. As part of their training the new technical officers received training in the Research Laboratory on grain quality and its measurement. The Department also did studies on the performance of Canadian grains in a wide variety of milling and baking techniques, attempting to reproduce the methods used in customer countries.

In 1962 Dr. Anderson left the Laboratory to become Director of the Winnipeg Research Station and a year later Director General of Research of Agriculture Canada. During his two decades as Chief Chemist the laboratory had grown in size and importance. The staff increased three fold and the level of education rose. He carried on the work of Geddes in firmly cementing the ties which bind the Laboratory to the agricultural research community in Canada and the rest of the world. He was, for example, one of the founders of the International Association of Cereal Chemists and its second President. He was also President, like Geddes, of the American Association of Cereal Chemists and a recipient of the Association's prestigious Osborne Medal.

In October of 1962 T.R. Aitken retired. "Tim" Aitken had served as a chemist in the laboratory since 1922, specializing in milling and baking. He was responsible for much of the work of evaluating the quality of wheat crops and of new varieties. He wrote the first and only substantial history of the Laboratory, as well as a history of cereal chemistry and a long article on the various presidents of the AACC. Along with his many scientific articles these writings constitute a substantial monument.

Early in 1963 Dr. Norman Irvine, who had begun working in the Laboratory in 1945, was appointed Director. Under Dr. Irvine the Laboratory's contribution to market development was greatly increased. He and members of his staff spent part of each year overseas, providing technical support for Wheat Board sales efforts. In 1965 a technical services section was added to the Laboratory. William Blaschuk, a baker with 20 years experience was hired to do test baking according to methods used in foreign countries. The purpose of the section was described as being:

> primarily for applied research studies on problems encountered in the milling and baking industries in countries that are current or potential markets for Canadian wheat. (GRL Annual Report, 1965)

The variety testing program was well developed by the 1960's. Spring and winter wheat varieties were tested for quality, in collaboration with the Cereal Laboratory of Agriculture Canada in Ottawa. Promising varieties that had passed through several years of agronomic testing were and are given to the Laboratory for milling and baking and other tests. Promising malting barley cultivars were and are tested by the Laboratory in cooperation with the Winnipeg Research Station and the Brewing and Malting Barley Research Institute. Durum cultivars were tested only at the Research Laboratory which had and has the only non commercial facility for testing macaroni quality in Canada. This quality testing is an essential step in the process of developing new varieties for licensing. In addition to testing Canadian varieties, the Laboratory cooperated with the Crop Quality Council in the United States by doing quality tests of American grain varieties.

In 1965 the National Research Council did a fourth and last review of the work of the Laboratory and recommended, among other things, the establishment of a pesticide residue laboratory. This unit was set up to monitor pesticide residues on grain — a problem that was becoming more of a concern to foreign customers with the increased use of chemicals by Canadian farmers. An added impetus was given to this important work in 1968 when several European countries passed new laws and regulations about allowable levels of toxic chemicals in food imports. In the later 1960's the Laboratory devoted a great deal of its time and resources to the problem of using protein as a grading factor. This will be discussed in detail later.

CHAPTER 17

CANADIAN GOVERNMENT ELEVATORS 1930-1970

In 1930, the Canadian Government Elevator system consisted of the terminals at Prince Rupert, Edmonton, Calgary, Saskatoon, Moose Jaw, Port Arthur and Halifax. An additional terminal was constructed at Lethbridge in 1932. In 1933, the Halifax elevator, which had been leased to the Halifax Harbor Commissioners since 1928, was transferred to that body. The Prince Rupert terminal was leased to Alberta Pool Elevators from 1926 until 1938. It was closed for one year and then reopened and operated by the Board until 1979. The Port Arthur terminal was leased to McCabe Grain from 1933 to 1962 when the elevator was sold to that company.

The government elevator system, although it did produce surpluses more than half the time in the period under discussion, was not a profitable operation. Terminals which are not fed by a line of country elevators are not assured of the volume of grain required to make a profit. The government terminals were only fully used in extraordinary circumstances. During the early 1940's and most of the 1950's when there were large stocks of grain in storage, the system realized a profit because of the income from storage charges. In years with wet harvests, like those of 1951 or 1968, the drying facilities of the inland terminals were used to capacity. When, however, grain was moving normally to export, as in the early 1960's, the elevators were by passed. It simply made more sense to ship directly to export positions.

The cost of moving grain through the inland terminals mitigated against their being used. There were two charges that would not have to be paid normally. The railways levied a stop off charge if grain was taken from a country elevator and unloaded at an inland terminal. In addition, there were elevation charges for receiving the grain and loading it out again. Balanced against these costs were the lower storage fees charged by the government elevator for most of the period 1930 to 1970. But grain would have to be in storage for some time for the savings on the storage charges to cancel the other extra costs.

Some of the government elevators were never very profitable, while others did reasonably well. Lethbridge and to a lesser extent Moose Jaw and Saskatoon were plagued by deficits. Indeed, the only period in which the Lethbridge elevator produced surpluses was during the War when it was used to move feed grains to the United States. During the 1930's, when very little grain was produced in their areas, the elevators at Moose Jaw and Saskatoon had operating deficits almost every year. Both were closed down in December, 1936. Moose Jaw reopened to store seed grain for distribution by the Wheat Board in 1937 and during 1938 both terminals were used for this emergency purpose. In 1937 they were both reopened and operated as terminals.

The Calgary and Edmonton terminals proved to be slightly more profitable over the years, partly because they were used as storage for feed grains. The Prince Rupert terminal was the most profitable operation of the system, especially during the 1960's when large volumes of wheat were moved through that facility for shipment to China.

The 1960's were a time of crisis for the system. With the exception of Prince Rupert, the elevators produced mounting deficits. Large scale repairs to the bins could not be delayed any longer and were carried out between 1958 and 1964. This added to the cost of operation. A.H. Wilson, the General Manager of the system between 1962 and 1967 made a number of suggestions and improvements. In one memo he argued for the creation of a crown corporation, in another he suggested the elevators be transferred to the Wheat Board or sold to the private grain trade. This latter course would be taken after 1978.

Wilson began to reduce staff at some elevators by not replacing those who left or retired. He also centralized the clerical operations in Winnipeg and automated a number of procedures. This led to further savings in personnel costs. But none of these measures could reduce the deficits which rose to a maximum of $1.5 million in the fiscal year 1967/68.

The Canadian Government Elevators, built to offer western farmers an alternative to the private terminals, had fallen victim to simple laws of economics. With the Pool elevators systems, producers had created their own alternative to the private grain companies. The location of the inland terminals and the fact that none of the terminals was fed by a system of line elevators made them difficult to manage profitably. They were to be operated for another few years before the inevitable decision to sell them was taken in 1978.

CHAPTER 18

BOARD 1970-86

The year 1971 marks a turning point in the history of the Canadian Grain Commission, as the Board of Grain Commissioners would henceforth be called, of equal significance to 1930. In both years major revisions of the Canada Grain Act were in the process of being passed. In both years new Boards were put in place with some expectation that they would revitalize the Commission and its operations. Both revisions were completed at times of change in western agriculture. In 1930 the large cooperative organizations, the U.G.G. and the wheat pools, had completed a period of phenomenal growth and were major players on the western stage. In 1971 commodity based producer groups like the Palliser Wheat Growers and the Rapeseed Association were becoming an important force. A new generation of highly trained, individualistic farmer entrepreneurs was assuming a leadership role in western agriculture.

The composition of the Grain Commission appointed in April, 1971, reflected the changing situation. H.D. Pound had a background similar to that of R.W. Milner, having worked in the private grain trade. He was employed by McCabe Grain for many years, finishing his career with that company as Seed Plant Manager and Elevator Superintendent. He then worked as a regional and later General Manager for Oliver Industrial Supplies. He was appointed to the Board of Grain Commissioners in 1970 and became Chief Commissioner a year later.

The Minister, H.A. Olson, hoped the Calgary businessman would bring his considerable managerial skills to the job of administering the Grain Act. During Pound's years as Chief a number of changes were made to produce a more efficient and effective organization.

C.L. Shuttleworth was reappointed as Commissioner in 1971 and remained on the job for five more years. The other newcomer to the Commission was F.H. Hetland, a master farmer from Saskatchewan. Hetland had been President of the Saskatchewan Rapeseed Association and to a certain extent his appointment reflected the importance of the newer commodity based farmer organizations. After four years with the Grain Commission, Mr. Hetland went to the Wheat Board where he still serves as a Commissioner.

In 1972, a reorganization of the Executive Division, as the Commission's administrative section was now known, took place. This was as a result of a management analysis study. The most significant change was the creation of the position of Executive Director. E.E. Baxter, of the Economics and Statistics Division, was the first person appointed to this job. The Executive Director was to coordinate and manage the work of the various divisions. The Secretary would now be concerned principally with the mechanics of maintaining and amending the Act and Regulations.

The following year, the personnel management function was transferred from Executive Division to Agriculture Canada Personnel. This streamlined the Division by relieving it of a massive amount of administrative and record keeping work.

Also in 1973 the move to the new building at 303 Main Street took place. The move from the cramped quarters in the old Grain Exchange Building to a modern 16 storey building was an important symbolic step in re-establishing the prestige and credibility of the Commission. All staff benefited from being able to work in more spacious and more cheerful surroundings, but the Laboratory probably benefited the most. Its facilities were brought together in the four top floors of the building and all the sections had ample room to work and to expand.

The Grain Commission Building was the end result of a long planning process. Originally, two alternate sites had been considered — one across from the Canadian Wheat Board on Main Street and the other on the site of the Customs Building on Rorie Street. The 303 Main Street location, owned at the time by the city, was finally chosen. The opening of the building symbolized the move south of Portage and Main by major grain industry participants. The move of the Commodity Exchange to the Trizec Building and the opening of the Cargill Building in 198 continued this shift south from the Exchange District.

The construction of the building was managed by the Department of Public Works office in Winnipeg and specifically by H. Todd of that office. Ken Rerie acted as the Commissions' representative during the construction and he was, for almost a decade after construction, the Accommodations Officer for the Commission.

The Canadian International Grains Institute moved into the new building at the same time as the Commission did. The newly formed Institute had operated briefly in offices in the grain Exchange. The Institute was very much the creation of Mr. Lem Shuttleworth and its first Director, Victor Martens. In the late 1960's, when Mr. Martens was still Secretary of the Board of Grain Commissioners, Otto Lang, the Minister responsible for the Wheat Board, had established a fund of $10,000,000 for research in grain marketing. At the same time, the feeling was developing at the Wheat Board that something more sophisticated than tours of facilities should be arranged for foreign visitors.

The idea of an institute which would offer intensive courses on the Canadian grain industry, as a support for Wheat Board marketing efforts, was born. Two consultants — Dr. Walter Bushuk, a cereal chemist and Travis Manning, an economist, worked out the basic plan for the institute. Treasury Board approved the money and the organizing phase began.

In 1972, Mr. Martens took a three year leave of absence to direct the new Institute. He remained as Director until his retirement in 1982. In the years since it opened its doors many thousands of grain trade officials from countries that are Canada's actual or potential customers, have been "sold" on the Canadian system of growing and handling grain by the Institute's instructors. The contribution of the Institute to the sale of Canadian grains and oilseeds has been immense. In addition, the Institute offers many "domestic" courses for Canadians working in the grain industry.

The terms of reference of the Institute stipulate that its directing Board should include representative from the Grain Commission, the Wheat Board and External Affairs. At the moment, the Chief Commissioner, Mr. George Leith and the Executive Director, Mr. John O'Connor are on the Institute Board.

When the Commission moved to the 303 Main Street location, a centralized library was established, combining the collections of the various divisions. The Laboratory had begun building a reference library as early as 1913, and by the later 1960's the collection was large enough to occupy a separate room in the old Laboratory in the Grain Exchange Building. Other divisions had also collected books and periodicals over the years. These collections were integrated in the new Library and catalogued for easy access. The Library has been staffed by three professional librarians, Hazel Fry, Lee Teal and the present librarian, Jim Blanchard. Until January 1986 the Grain Commission Library was part of the Agriculture Canada Libraries

Division system and the staff was paid by that Division. On the latter date the library was taken over completely by the Commission and library staff are now part of Executive Division.

The collection is particularly strong in the areas of cereal chemistry, milling and baking, grain storage and handling and management. It also contains an important collection of historical pamphlets covering the history of the grain trade in western Canada.

The use of computer database searching and electronic mail have greatly increased the scope of services the library can offer.

Major changes have taken place in the regulation of tariffs and in the fees charged by the Commission for its services. Under the Act, the Commission controls the tariffs that elevator companies charge for elevation and storage. In 1912 the first maximums were imposed on charges for terminal elevator services and in 1917 country elevator services charges began to be regulated. From that to the 1970's, the maximums were the amounts actually charged by the companies. From 1945 to 1974 the Wheat Board negotiated special rates with the elevator companies for the handling of grain sold to the Board. These rates were consistently higher than the maximums set by the Grain Commission.

In the early 1970's it was believed by the Commission that the maximum tariffs were too low. The costs of operating elevators had increased dramatically. The Economics and Statistics Division began studying the costs of elevator operations to provide background for a change in the tariff structure. In 1974 a Tariff Review Committee held meetings and issued a report recommending substantial increase in maximum tariffs. The principle underlying this recommendation was that with a high enough maximum, the companies would have enough latitude to set their tariffs competitively and still realize a profit.

Maximum elevation charges at primary elevators were increased substantially in August of 1974 and in January of 1979 maximum elevation charges at terminal elevators were similarly increased. These maximums now represented ceilings below which tariffs were set by the companies in competition with one another.

Also in 1974, the Wheat Board changed the terms of the handling agreements negotiated with the companies for the elevation of grain sold to the Board. After that date only small charges were paid to the companies, to cover the cost of special record keeping for Board grains and these amounts were not paid directly by the farmer but by the Board. Charges for removal of dockage were instituted in 1975. The producer pays these charges at the country elevator, although the cleaning takes place at the terminal elevator.

The effect of this change in the regulation of tariffs was to bring the amounts paid to the elevator companies for their services into a much closer relationship with the actual costs. It has helped to ensure the continued existence of an elevator system to handle the western crop. These changes were introduced without controversy. Some producers believe that they are now being overcharged for the services of the grain companies. Caught between the producers and the trade, the Commission will continue to seek a workable compromise acceptable to both.

Closely related to the matter of tariffs are the fees charged by the Commission for its services. These fees had been increased occasionally over the years after 1912 — in 1920, 1949 and 1965. In 1964, 1971 and 1972 the Auditor General's Reports noted that the fees charged for inspection, weighing and the registration and cancellation of elevator receipts were too low to recover the cost of these services. After 1974 increases in fees began and were phased in gradually and the policy was established that income from fees would eventually cover the costs of the Commission, except in the case of the Laboratory. The Commission's fees are still under review. In 1986 a committee composed of grain industry representatives recommended further changes which would more accurately reflect the costs of providing services in various locations.

In 1975 F. Hetland left the Commission and was replaced in January 1976 by G.G. Leith. A farmer from the Rosetown area of Saskatchewan, Mr. Leith sat in the Saskatchewan legislature during the 1960's as a Liberal. He was later the western Special Assistant to the Minister of Agriculture. In 1986, after 10 years of service, Mr. Leith succeeded H.D. Pound as Chief Commissioner.

Other changes took place in 1977, with the retirement of C.L. Shuttleworth. R.H. Harland, who had previously worked for the Cargill Grain Company, was appointed to take his place. In 1981 he was replaced by V.E. Candlish, the first woman Commissioner. Dr. Candlish was also the first trained scientist to serve on the Commission. The holder of a degree in plant science, Dr. Candlish is an acknowledged expert in the area of feed grains.

In the 1970's changes in the industry, such as the greatly increased volume of trade in rapeseed futures, led to demands for closer regulation of the Commodity Exchange, as the Winnipeg Grain Exchange was now known. The Grain Futures Act of 1939 included provision for a Supervisor of Futures Trading, but one was not appointed until 1975 when Mr. Walter Folliot was named to the position. It was then necessary to make regulations that would bring the 35 year old Act up to date. Regulations were drafted and a formal hearing met to receive proposals from the institutions effected. The regulations extended the Act's provision to the Winnipeg Commodity Exchange, the Vancouver Grain Exchange, the clearing houses in both cities and the Lake Shipper's Clearance Association. The Supervisor who reports to the Chief Commissioner but is not a Commission employee, monitors the activities of futures traders by visiting the trading floors of both exchanges and by examining the books and records of the clearing houses. If it appears the Act has been violated, the Supervisor has the power to investigate and report his findings to the Commissioners. On occasion this has led to the involvement of the RCMP Commercial Crime Section.

In the period under review, the Assistant Commissioners continued their inspections of primary elevators, served as the first level of appeal for complaints from producers and monitored overages and shortages at primary elevators. The increasing computerization of the industry has made their monitoring activities a little easier by ensuring up to date statistics on grain movement through the elevators. At the same time they are confronted with the task of regulating a technically more sophisticated elevator system. As in the past the Assistant Commissioners use diplomacy and common sense to solve hundreds of small disputes that, without their intervention, might fester and become major problems. In 1973 and 1979 the Commission extended its services to eastern Canada with the appointment of Assistant Commissioners in Ontario and Quebec respectively.

In 1986 the Commission saw its last change in membership in the period under consideration. H.D. Pound and V.E. Candlish left the Commission and were replaced by R.H. Klassen and R.A. Groundwater. Mr. Klassen is a native of Alberta who, like many of his predecessors, earned a degree in Agriculture from the University of Manitoba. He had worked in the farm supply industry, operated a large farm in the Sanford area and owned a chemical and fertilizer business and a feedlot before being appointed to the Commission.

Mr. Groundwater has a Master's degree in Agriculture and worked as a public servant with the Trade Commission Service in Australia and Russia, and in Alberta with the Department of Agriculture. He operates a family farm in Alberta and has worked for Western Breeders International, selling animal embryos to foreign countries. Both men have a variety of experience inside and outside the grain industry.

During the 1970's, because of the increased trading in new crops like rapeseed, and the effects of the domestic feed grain policy, the number of licensed grain dealers increased dramatically. During the period of rising prices in the late 1970's, these firms did well, and offered farmers new options for marketing their grain. With the downturn in the grain market in recent years, some of these new firms have experienced difficulties and gone bankrupt. In most cases, the security bonds posted have been adequate to protect those during business with these companies. In two notable cases, however, this was not the case. The whole area is a continuing challenge to Commission staff.

CHAPTER 19

INSPECTION 1970-86

The inspection of grain has undergone some revolutionary changes in the past 16 years and it is likely that more change will occur in the near future. The perfection of instruments using near infrared spectroscopy has allowed rapid analysis of grains and oilseeds for protein content and other factors so that customers can be offered a more precisely graded product. In 1971 the old Brown Duval moisture tester was phased out, replaced by the 919 meter. The old controversy about unlicensed varieties has resurfaced and the debate continues. One of the most important changes of the years between 1970 and 1986 occurred in 1971, when the new grades for red spring wheat were introduced.

The 1971 revision of the Act gave the Grain Commission the authority to make changes in the grading system without first going through Parliament to seek a formal amendment. This authority was exercised in August 1971 when the first new set of grades, 1 Canada Western Red Spring was introduced to replace the previous No. 1 Hard and No. 1 and No. 2 Northern. The following August 2 C.W. and 3 C.W. grades replaced the old 3 and 4 Northern and lower grades. The new grades were introduced to simplify the wheat grades and make them a more realistic system for categorizing the wheat crop. The old No. 1 Hard grade had seldom been used because the standards were unrealistically high.

At the same time the grades were changed, protein segregation was introduced. After almost 50 years of discussion protein levels would now be a factor in the Canadian system. Years of preparation had gone into the protein segregation project. The Grain Research Laboratory and the Economics and Statistics Division had done statistical studies of the distribution of protein. All the divisions of the Commission had been involved in planning logistics, along with the Wheat Board and the grain companies.

In the latter part of 1970 a pilot project was carried out, using two of the terminals at Thunder Bay. The installation of pneumatic sample transport systems began at some terminals, so that samples could be moved quickly from the unloading area to the inspection office.

In August 1971, when the new 1 C.W. grade came into effect, protein segregation for wheat falling into the new grade was begun. The mechanics were as follows; the primary elevator manager took a sample and sent it to either Calgary or Winnipeg for analysis in the Kjeldahl laboratories there. The protein level, once determined, was telexed ahead to the unloading terminal, so that the carlot could be binned according to grade and protein level. Unload samples were taken at Thunder Bay and Vancouver and tested again as a check. Thanks to this new system the Wheat Board was now able to guarantee protein levels to customers who required such guarantees and charge a premium in return.

The evolution from the Kjeldahl wet chemistry technique to the automated digital analyzer based on near infrared technology is described in the section on the Grain Research Laboratory. The new instruments allow a fast protein analysis of a ground sample and can be used by Inspection Division staff stationed in the terminals. Between 1975 and 1977 the near infrared analyzers replaced the Kjeldahl laboratories and made it possible to determine protein levels in each terminal, using only an unload sample. Sampling in the primary elevators was discontinued and the Kjeldahl laboratories in Winnipeg, Vancouver and Thunder Bay were used only to monitor the accuracy of the near infrared equipment.

At the end of the 1970's the grain companies began to install automated digital analyzers in primary elevators, making it possible for farmers delivering wheat of specified protein levels to receive a premium payment. Producers can now ask the Commission to test a sample for protein level, if they are not satisfied with the elevator manager's determinaton. The Commission was involved in this change from the beginning, loaning the first instruments to the elevator companies for testing and offering a monitoring service, similar to the one offered for moisture meters. Protein segregation has thus been extended to the primary elevator so that producers can benefit directly from the production of high protein wheat. New technology has made possible a system which has been talked about since the 1920's.

In 1984, a further refinement on the system was made when Trebor whole grain analyzers were installed in some terminals. These instruments can be used to determine the protein content of whole kernels, eliminating the grinding of samples.

In 1970 a larger than average number of infested cars were detected at terminal points. This was due to the handling of high moisture grain, which had been in storage since the 1968 harvest. This resulted in the Inspection Division's Entomology service expanding its control techniques. As well as the regular inspection of terminal and transfer elevators and the examination of samples sent in by country elevator managers, the service embarked on a cooperative program with Plant Protection Division. This involved the inspection of lake vessels before loading at Thunder Bay and at unload at St. Lawrence ports. Regional entomology labs were established at Vancouver in 1971 and at Thunder Bay the following year. By the end of the decade the inspection offices at Sorel, Trois-Rivières, Quebec City and Baie Comeau and Port Cartier all had entomological testing equipment and there was another laboratory at Chatham and one in Montreal. The new facilities enabled the service to analyze 88,000 grain samples in 1980, compared with 10,000 in 1970.

The 1980's have seen the resurgence of an old problem — the growing of unlicensed semi dwarf wheats. Producers looking for other options besides the standard hard red spring varieties like Neepawa and Glenlea, began to grow semi dwarfs like Solar and Era. These wheats are shorter in the stalk, as their name implies, and so are less susceptible to lodging. Given good moisture conditions they respond better to fertilization. Yields are significantly higher than with regular varieties.

Their end use quality, however, is lower or at least very different from Canada's high protein wheats. They are suitable only for producing items such as noodles or flat breads. As unlicensed varieties they are eligible, in Canada, only for feed grades. They are also very difficult to distinguish visually from hard red spring wheats. In 1983 it is estimated that 100,000 acres of these wheats were grown in Manitoba alone and some of it found its way into the higher grades, because of the visual indistinguishability problem. Elevator managers may have graded the wheat 3 C.W. for example. When it reached the terminals, much of it was downgraded when the Inspection staff correctly identified it. In 1983, 75 to 100 carlots were down graded. The elevator company absorbed the losses, when the grain belonged to the Wheat Board. The next year very few cars were downgraded, the elevator managers having become much more proficient at detecting semi-dwarfs.

In 1984 some milling companies began to express concern about Manitoba wheat. Clearly they did not wish to pay premium prices for wheat that might have large admixtures of medium quality wheat. Various efforts were made to stem the tide of semi dwarf wheat. Officials from the Grain Commission and the Canadian Wheat Board began to warn farmers against growing the wheat. If such wheats found their way into export cargoes, they might damage the country's reputation for high quality bread wheats. In August of 1983, a Morden area farmer, Don Bargen, was charged under the Canada Seeds Act for advertising semi-dwarf wheat seed for sale. The Act states that unlicensed grain cannot be advertised for sale as seed. The charge was thrown out by the judge who stated that Bargen had not mentioned the name of any varieties and that there was one licensed semi dwarf, grown in Alberta.

Probably the most effective move to discourage the growing of the unlicensed wheats, was the development of HY 320, a semi dwarf produced at the Swift Current Research Station. Work began on the variety, which is visually distinguishable, in 1973. In 1984 the Wheat Board contracted with farmers to grow 160,000 acres of the variety across the prairies. The next year the variety was licensed and a separate grade was established - Canada Prairie Spring Wheat. Whether being able to sell the new licensed semi dwarf at a price higher than feed will attract producers away from growing unlicensed varieties is not yet clear.

In 1985 and 1986 the controversy over semi dwarfs has moved to include the larger issue of what Canada should be offering on the world's wheat markets. On the one side stands the Wheat Board, the Grain Commission and most of the industry, saying that Canada has always supplied a specialty market with high protein bread wheats and should continue to do what it does best. On the other side are some producers and economists like A. Loyns of the University of Manitoba, who feel Canada should be trying to break into the vast market for medium quality wheats. HY 320 will give the Wheat Board a product with which to do this, if such a break through is possible. The resolution of the debate lies in the future.

The inspection of grain has become a much more sophisticated process in the last decade and a half. Visual inspection has been augmented by technologically sophisticated instruments. In the future variety identification by instrument may be possible, if the complex gel electrophoresis method of "fingerprinting" varieties can somehow be made practical for use in the elevator system. But the skills of the inspector, learned over five years of intense training and constantly tested in yearly exams, are still the core of Canada's grading system.

The Chief Inspectors responsible for guiding the Division through these changes face challenges greater than those faced by their predecessors. They have proven themselves equal to the task. M.M. Ainslie retired as Chief Inspector in 1973. He was succeeded by C.W. Hammond who in turn retired in 1974. A. Schaen was Chief Inspector from 1974 until his retirement in 1976. V. Duke held this position from 1976 until 1982 when the present Chief Inspector, H. Fast was appointed.

CHAPTER 20

CANADIAN GOVERNMENT ELEVATORS 1970-81

The passage of the new Grain Act did not directly effect the operations of the government elevators. Changes taking place in the grain industry were, however, reflected in the operations of these terminals. Total handlings for the system set record after record during the decade of the 1970's. Only in 1976 and 1977 were there declines. This was due in part to the massive grain sales to Russia, China and Japan which caused an increased use of the Prince Rupert terminal. Rapeseed acreage expanded throughout the 1970's and the designation in 1977 of the Saskatoon, Edmonton and Calgary terminals as grain futures delivery points for rapeseed by the Commodity Exchange led to large handlings of that crop. In the following year Moose Jaw was also made a futures delivery point.

Modernization of the elevators took the form of upgrading of electrical equipment such as motors and drives to conform to new electrical and safety codes. This upgrading started at Prince Rupert and was carried on year by year until all the terminals had been re-equipped. New cleaning equipment and electronic controls for scales were installed in most of the plants. The Prince Rupert terminal, which was heavily used throughout the 1970's, was upgraded by the addition of a new car dumper, additional grain dryers, and a new dock.

Between 1972 and 1977 the Wheat Board carried on an experimental program of moving grain to the inland terminals by truck, cleaning it and shipping it to export points, often in unit trains. This increased the handling of grain through the government elevators and when the program stopped, the throughput declined.

In 1978 the Government embarked on a restraint program and in September the cabinet announced that part of the program would be achieved by selling the Canadian Government Elevators to private industry. The sale was to be handled by Public Works and the Commission would work closely with that department in order to ensure the continuation of service and to safeguard the jobs of the staff.

In 1979 four of the elevators were sold — those in Alberta were purchased by Alberta Terminals Ltd. and Northern Sales bought the Saskatoon terminal. The next year a consortium of six grain companies took over the Prince Rupert elevator. An acceptable offer for the Moose Jaw terminal was not received until March, 1981 when it was sold to the Allstate Grain Company.

The elevators were sold as a cost cutting measure. They had been in a deficit position if one looks at the total period from 1970 to the end of the 1977/78 fiscal year. In that period surpluses had amounted to about $3,000,000.00. The years which had produced deficits, however, had run up a total of over $5,500,000.00 most of that being in the three years ending in March, 1978. The system, as a whole, was a drain on the treasury, although the Prince Rupert terminal was in a stronger position. It made economic sense therefore, to sell the elevators. The political reasons for their construction had long since been forgotten.

CHAPTER 21

WEIGHING 1970-86

The recommendations of the management study of Weighing Division were put into practise in the early 1970's. In 1972 two operational sections were formed and S.M. Kasner was appointed Weighmaster, Audits and Scales and C.L. Wood became Weighmaster, Operations. In 1973 J.S.T. Swanson was appointed Head of the Weighing Division. Mr. Swanson was the first Chief Weighmaster who had not worked his way up through the ranks and who was a professionally qualified engineer.

The automation of scales that had begun in the late 1960's continued at a faster pace in the 1970's. Old mechanical scales were converted by replacing the lever systems with cells which sent electric signals to electronic meters. New scales were installed with completely electronic controls. Scales were tied to computer networks to record weights. At the state of the art terminal opened in Prince Rupert in 1985, the scales as well as all the other equipment of the elevator can be controlled from a central control panel and the sequence of operations can be programmed and managed by a computer.

The introduction of new technology has presented a major challenge to the Division — how to adapt its operations to successfully monitor and regulate the new equipment. As in the past all scales were inspected and licensed by Division staff, acting for the Department of Consumer and Corporate Affairs. Weighing was supervised at terminals until 1985 at transfer elevators on a request basis. Beginning in 1985 all weighing into and out of transfer elevators was supervised by Weighing Division staff. The Division continued to audit stocks of grain in terminal and transfer elevators.

In addition to these functions, carried on since 1912, the Division employed a scale technician to inspect all installations of new automated scales. In 1978 work began on a prototype monitoring and recording system which would then become a required part of any automated grain handling system installed in a terminal. The Commission contributed toward the cost of incorporating the system into the Saskatchewan Pool No. 7 terminal at Thunder Bay. An automated control system was being installed in that terminal at the same time. By 1980 the monitoring system was installed and working. Since then such systems have been installed in other terminals.

One important effect of the automation of the weighing function has been a significant reduction in the staff of the Division, from 234 in 1970 to 187 in 1985. There has also been a shift in staff with an increase of 21 in Montreal and a decrease in Thunder Bay and the west.

CHAPTER 22

ECONOMICS AND STATISTICS 1970-1985

During this period, the Economics and Statistics Division, as the Statistic Division came to be called in 1972, continued to serve as the main Canadian source of grain industry statistics. Its publications are used by the Commission and the Canadian Wheat Board as well as by other government agencies and the industry to plan and monitor work. The Division cooperates with Statistics Canada and international agencies in producing statistical reports.

The Division is responsible for licensing and bonding operations and for the registration and cancellation of elevator receipts. Over the last fifteen years all parts of the Canadian grain industry have become increasingly integrated electronically. Data that was once exchanged by mail now passes between agencies and companies electronically.

The Division now has computers at Thunder Bay and Vancouver as well as Winnipeg. In addition, a number of microcomputers and word processors are in use. In the 1970 to 1985 period the grain handling companies have increasingly turned to computers to streamline their operations. Most primary elevators are now equipped with computers which are linked with the company head offices. In most cases, the day's business is reported to the head office automatically during the night. At the other end of the elevator system, terminals have become more and more automated, the most advanced facility being the new terminal at Prince Rupert. There, processes like binning grain and loading ships can be controlled by a computer program and completed with very little human intervention.

The Division has made arrangements to tap into parts of these information systems to gather data on the handling and storage of grain. The Division provides computer services to the Western Grain Stabilization Administration and to other divisions of the Commission.

The Division continues to monitor freight rates on the Great Lakes, to keep the Commission informed of the average cost of moving grain. It also monitors the amount of insurance carried by licensees, making sure that it is sufficient to cover the value of grain in store in their facilities. Division economists monitor the costs of elevator operation to guide the Commission in setting maximum tariffs.

The responsibility for administering the producer car program was added to the Division's workload after 1970. Use of producer loaded cars had fallen from a high point of over 50,000 in 1912/13 to almost nothing in the early 1970's. In 1977 and the years that followed, however, there was a sudden and dramatic increase in their use for the shipment of feed grains. G.R. McLaughlin in his study "An Analysis of the Potential Use and Impact of Producer Loaded Railway Cars", 1981, attributed this increase to the effects of the domestic feed grains policy. Although there is no Wheat Board delivery quota on feed grains, so that, theoretically, producers may deliver as much as they wish, the feed grain policy established controls on the amount of elevator space that could be devoted to these grains. This restriction meant that people wishing to ship feed grains were often forced to by-pass the elevator system and use producer cars to do so.

As a research agency the Division has continued to make a major contribution. During the period 1970 to 1985, Division personnel provided background research for the protein segregation program, for the change in tariff setting, and for the change to the metric system.

In the Licensing area an important development in this period has been the decline in storage capacity. This reflects a general shift toward a more throughput oriented handling system. It also mirrors the consolidation of lines of country elevators in the hands of fewer companies and the continued closing down of branch lines.

After July, 1971, the Licensing department no longer collected the levy for the Prairie Farm Assistance Act. The Act was rescinded in that year. The total collections over the years from 1939 amounted to $215,000,000. In April, 1976, the Western Grain Stabilization Act was passed and the Economics and Statistics division was responsible for collecting the 2% levy from participating producers. In October, 1978, the Western Grain Stabilization staff took over the collection of the levy, but computer services are still provided by Economics and Statistics.

Registration and registration for cancellation of elevator receipts is done by the Division from offices in Montreal, Winnipeg and Vancouver. The Inspection office at Chatham offers the same service to transfer elevators in Ontario. the major change in the 1970 to 1985 period occurred in 1973 when the Division began to actually produce the elevators receipts for the companies as well as registering them. The receipts are produced using Weighing Division and Inspection Division data transmitted electronically from the terminals to the Economics and Statistics computers.

E.E. Baxter was head of the Division until 1972 when he was appointed to the newly created position of Executive Director. He served in this post and then as a special advisor to the Commission until his retirement in December 1983. Mr. Baxter's contribution over the 36 years of his employment had been great, both in his official positions but also as a member of almost every committee and study group which had planned new directions for the organization. He is typical of the post war generation of highly competent technocrats who have guided the Commission into the "information age" in the last 40 years.

L.C. Rayner became head of the Division in 1973 and served in that capacity until 1980. D.N. Kennedy became head of the Division in 1982 and continues to serve in that capacity.

CHAPTER 23

GRAIN RESEARCH LABORATORY 1970-85

The laboratory has continued its basic work of monitoring the quality of Canadian grains and oilseeds and publishing the results of its work. The moisture testing equipment used by the Inspection Division is constantly checked for accuracy. The scientists on staff have continued to participate in the development of new varieties by testing promising cultivars for end use quality. Laboratory staff take the results of this work to the yearly meetings of the Committee on Grain Quality which makes final decisions about the licensing of new varieties.

One of the most important contributions made by the Laboratory in recent years has been the development of a method for the rapid determination of protein content. This was especially important in the protein segregation system which started to operate in 1971.

When protein segregation began, the Kjeldahl method of determining protein was used. The laboratory operated a Kjeldahl laboratory at Winnipeg and two staff members went to Calgary to set up another facility there. Samples from primary inspections, car unloads and cargo samples were analyzed to ensure that the customers were getting the assured levels of protein they had paid for. The laboratory in Winnipeg operated 24 hours a day, 7 days a week to deal with the volume of samples.

In 1972 a third laboratory was set up in Thunder Bay. The Inspection Division began to take over some of the shifts at the Winnipeg laboratory, the eventual objective being for Inspection staff to operate the laboratory.

While these laboratories were being set up, work was proceeding in the Grain Research Laboratory on developing a fast method of determining protein that would be reliable and simple enough for use by terminal elevator staff without scientific training. The traditional wet chemistry Kjeldahl method was too complex and time consuming.

By 1974 the Automated Digital Analyzer made by Neotec Instruments had been selected as a possible solution to the problem. Laboratory staff under Dr. P.C. Williams worked with Neotec to modify the instrument for the specific task of determining protein and moisture content in ground samples of wheat representative of each individual carlot. In November 1975 the instrument replaced the Kjedahl laboratories at Calgary and Thunder Bay. On the basis of the results obtained from the Analyzer, terminal staff segregate grain of specific protein content and bin it for shipment to customers requiring guaranteed protein levels.

Techniques and instrumentation have been further refined over the years so that protein content of wheat and protein, oil and chlorophyll content of rapeseed can now be determined using whole kernels, without grinding the sample.

The move to the new building on Main Street was of great advantage for the laboratory because it gave the various sections a great deal more space to work with. The move made possible the construction of a pilot mill that could more accurately simulate commercial milling conditions. Work on the design of this unique mill began in 1971 and the Buhler equipment manufacturing company worked with laboratory staff on its design. The mill was started up for the first time in February 1977. Since then it has been used effectively to simulate a wide variety of milling techniques — including those of Chinese and Brazilian millers — to evaluate the potential of Canadian wheat for uses such as noodle making and French bread production. It is also used in a wide variety of other research and monitoring projects.

In 1971, the growing importance of the Rapeseed crop was recognized in the establishment of the Oilseeds Quality Control Laboratory. One of the section's first projects was to help in the segregation of the new, low erucic acid varieties of Rapeseed, Oro and Span. These varieties were more desirable for sale, but they were visually indistinguishable from other varieties. The section used a chemical technique to do the separation.

After 1975, when Dr. J.K. Daun was appointed head of the section, a number of new techniques were developed for the rapid determination of chlorophyll, free fatty acid and protein content in rapeseed. As always, the thrust of the section's research is to better understand what determines quality in oilseeds.

During the 1970's a great deal of research was done on alpha and beta amylase-enzymes which influence in various ways the end use quality of cereals. Both the wheat and barley sections studied the effect of these enzymes on the malting process, bread properties and pasta color. Methods of isolating alpha and beta amylase were developed.

Various studies on the effect of harvesting conditions on quality were conducted. In 1970 the Laboratory cooperated with the Plant Science Department at the University of Manitoba in a study of alpha amylase and sprouting. In 1980 the effect of harvest conditions on pasta quality was studied in a joint project with the Agriculture Canada Research Station.

The Laboratory's pesticide monitoring program worked throughout the 1970 to 1985 period to develop techniques for the detection of a wide variety of pesticides. In 1976 fungicide residues were a concern and in 1979 a method was developed to detect malathion.

In 1978 a method of fingerprinting wheat cultivars using gel electrophoresis was perfected. Each cultivar produces a unique pattern of gliadin proteins which can be used to identify varieties which might be unlicensed but are difficult to keep out of the higher grades because they are visually indistinguishable.

In 1980, the laboratory acquired a scanning electron microscope and this instrument has been used extensively in a number of studies. It has made possible the study of changes within the kernel during germination and within dough during its development.

The Laboratory staff continued to offer support for the work of the Commission and the Wheat Board by travelling to foreign countries and conducting tours and participating in the courses of the Canadian International Grains Institute. Beginning in 1975 Dr. P. Williams has spent time each year in Syria at the International Centre for Agricultural Research in Dry Areas. He has been helping to establish a quality testing program to support the development of new cereal, food legume and forage varieties. The staff has continued to be deeply involved with the work of the American Association of Cereal Chemists and many other scientific societies. Every year, many papers are published by Laboratory staff in leading journals.

In 1978, Dr. N. Irvine retired from the position of Chief Chemist. He was succeeded by Dr. K. Tipples in August of 1979.

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